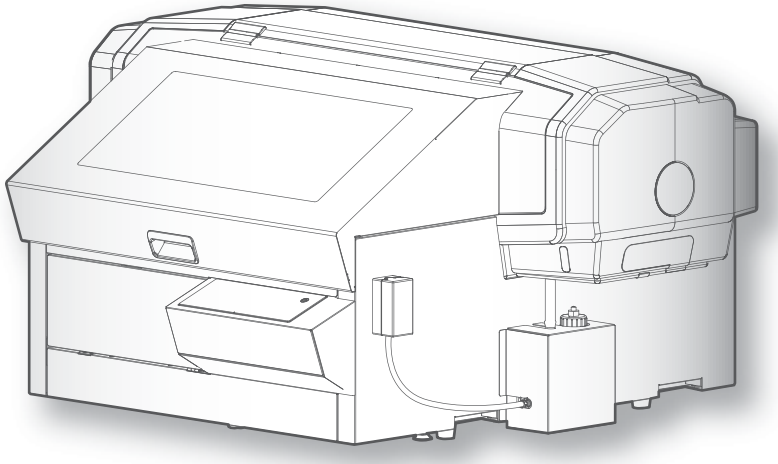
MUTOH

XPJ-461UF

Operation Manual

Operations and Maintenance Methods



- Unauthorized copying or duplication of the whole or part of the contents of this manual is prohibited.
- Every care has been taken in writing the contents of this manual, but please contact MUTOH or the dealer you purchased the product from if you find any unclear, erroneous or otherwise unsatisfactory content in the manual.
- Please be aware that MUTOH will not be liable in any way for failures or accidents that result from handling or operating the printer according to any procedures other than those set forth in this manual.
- Company names and product names that appear in this manual are registered trademarks of the respective companies.

For Users in Europe

The CE marking is a mandatory European marking for certain product groups to indicate conformity with the essential health and safety requirements set out in European Directives.

By affixing the CE marking, the manufacturer, his authorized representative, or the person placing the product on the market or putting it into service ensures that the item meets all the essential requirements of all applicable EU directives and that the applicable conformity assessment procedures have been applied.

For Users in the United States

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This system (including the housing and safety device) is a Class 1 laser product.
Laser specifications of this system (including the housing)
Wavelength: 655 nm, maximum output: 390mW or less, pulse duration: 3.0µs
Complies with IEC 60825-1 Edition 3.0 (2014-05-15).
Complies with FDA performance standards for laser products except for deviations pursuant to Laser notice No.56 dated May 8, 2019.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in radiation exposure.

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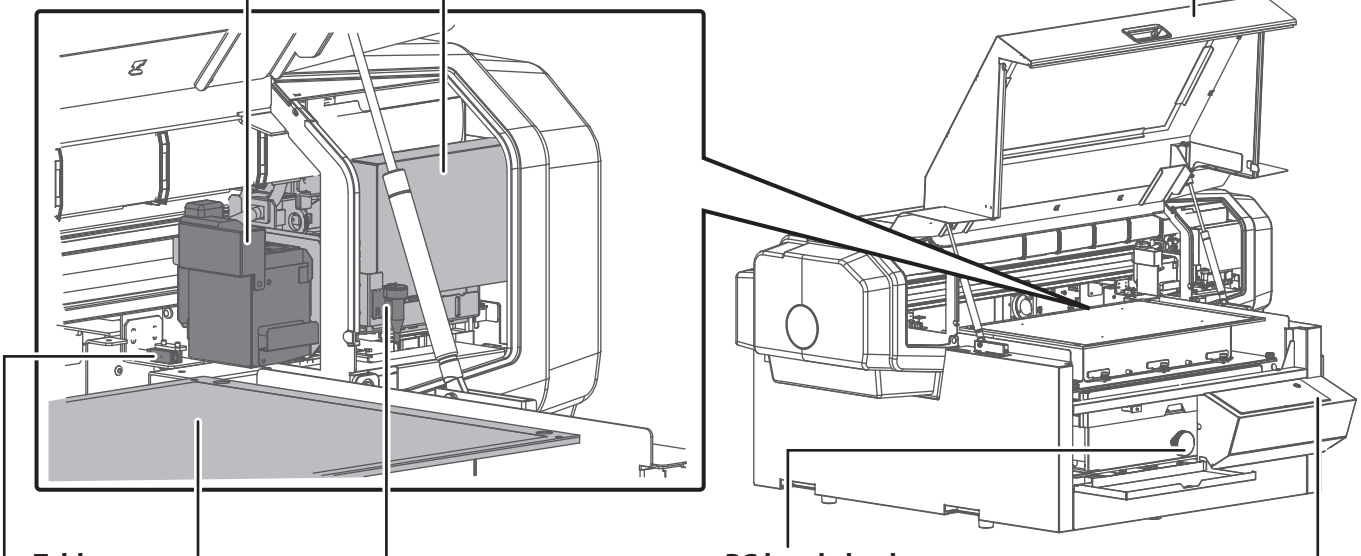
Main components of your printer

Front side



UV-LED unit
Unit that emits the UV (ultraviolet) light to cure the ink.

Carriage
Contains the print head, the LED pointer and UV-LED unit.

Front cover
Open when mounting media or during maintenance.

Table
The media is printed on this. Its height can be altered by turning the PG handwheel.
It can be removed to install the optional vacuum table with vacuum fan.

Obstacle sensor
Sensor for making sure the media does not contact the print head.

LED pointer
Used for setting the origin point position or for checking the printing area.

PG handwheel
Turning the handwheel inside here raises/lowers the table.

Operation panel

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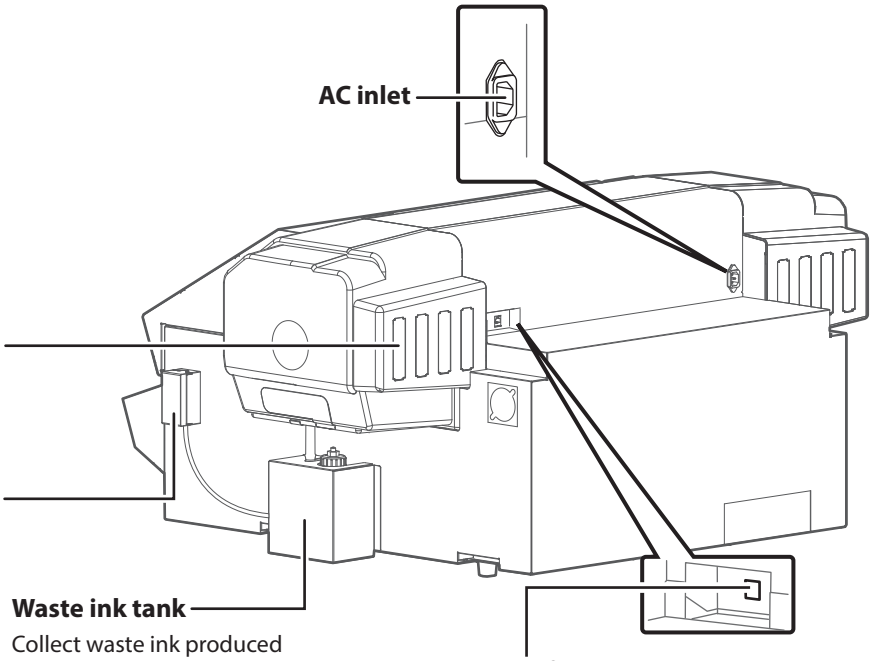
Rear side



Cartridge slots
Install ink or cleaning cartridges.

Two-way valve clamp
The two-way valve of the waste ink drain tube is hooked on this clamp to store while not in use.

Waste ink tank
Collect waste ink produced during printing and cleaning cycle. Empty the tank as needed.

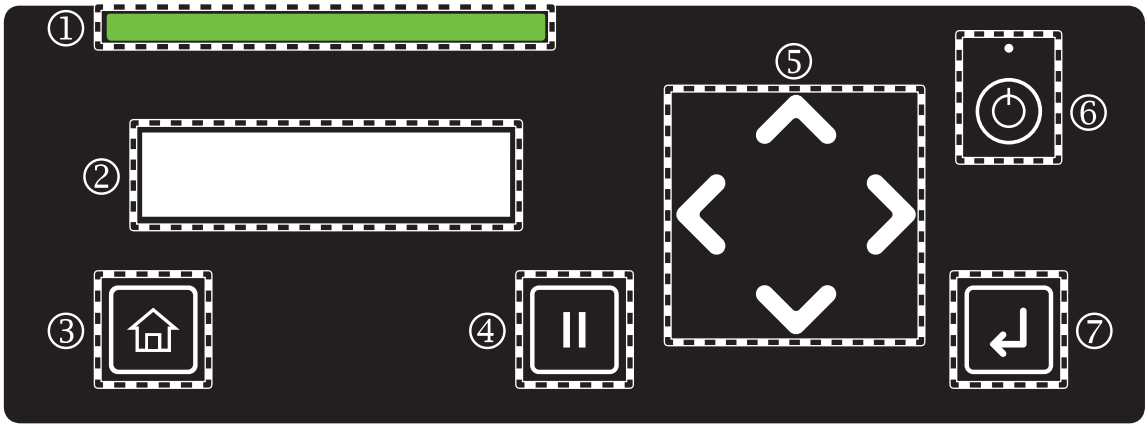
Network interface cable connector
Connect an Ethernet cable.

How to use touch screen on front panel

The printer has a touch-screen panel located on the front right of the printer. The active keys are lit up on the panel for guidance.

- Tap: Lightly touch the key with your finger, then immediately release.
- Long-touch: Keep touching the key.

Front panel



① Status Bar

Indicates the printer status by LED light.

- Working normally: Solid green or flashing green
- Error/Alert state: Solid red (error) or flashing red (alert)

② Display

Displays the printer status, setting menu, errors and so on.

③

[Home] key:

Access to or exit the menu.

④

[Cancel] key:

- Pause the print job. While pausing, tap the key again to resume printing.
- While the printer is not printing, tap the key to cut the media.

⑤

Arrow keys:

When you have entered the setup menu, the arrow keys are used to select a menu or enter a value.

- key: Go to the previous item.
- key: Return to the upper level menu without saving the change.
- key: Go to the sub menu.
- key: Go to the next item.

While the printer is in standby mode, it is used to load media, remove media, run a nozzle check, or perform head cleaning.

- key: Tap after loading media to put the printer into ready-to-print status.
- key: Tap to run a nozzle check.
- key: Tap to perform cleaning.
- key: Tap after printing to remove media from the table.

⑥

[Power] button:

- Long press to power on the printer.
- While the power is on, long press the button to power off the printer.

Note

The ⏻ symbol means “standby”. Even the Power LED turns off, the device still consumes some power unless the power cords are disconnected. This state is referred to as the power being “off” in this Manual.

When the power cord is plugged in, the small LED light above the Power button turns on.

⑦

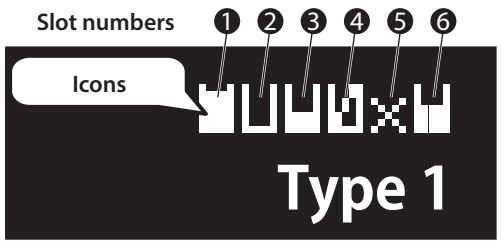
[Enter] key:

Use the Enter key to select a menu or confirm a value.

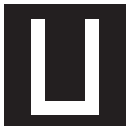
Icon displays on operation panel

Icons to indicate the status of the ink or cartridges are displayed in the following situations:

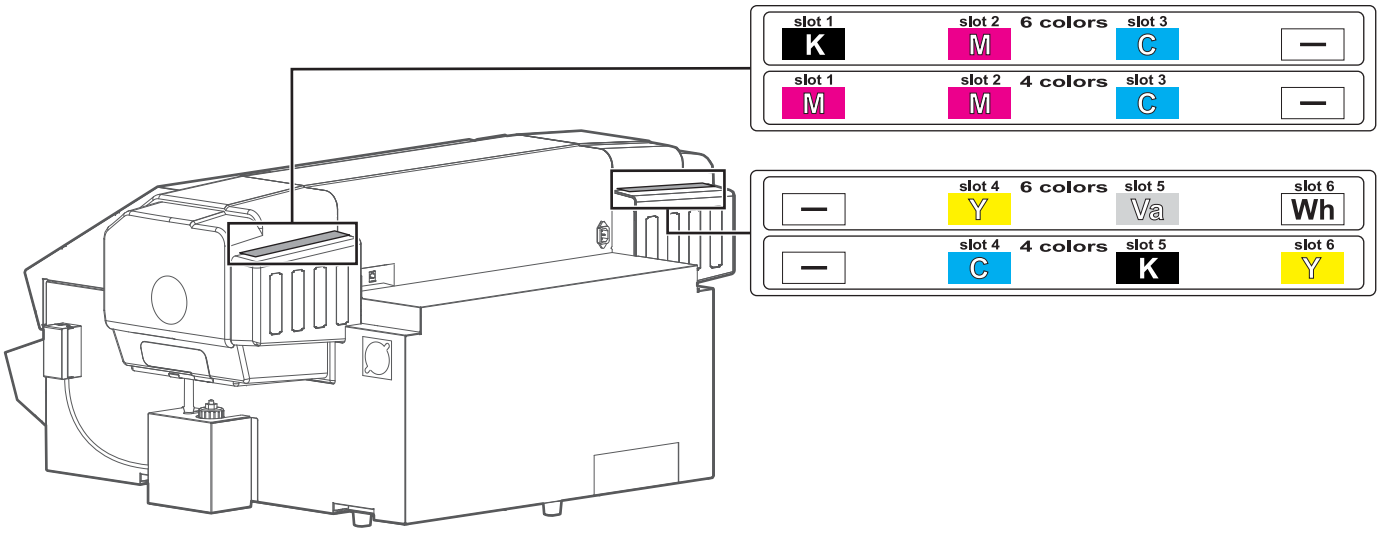
- When no menu is displayed
- When there is an ink or cartridge error



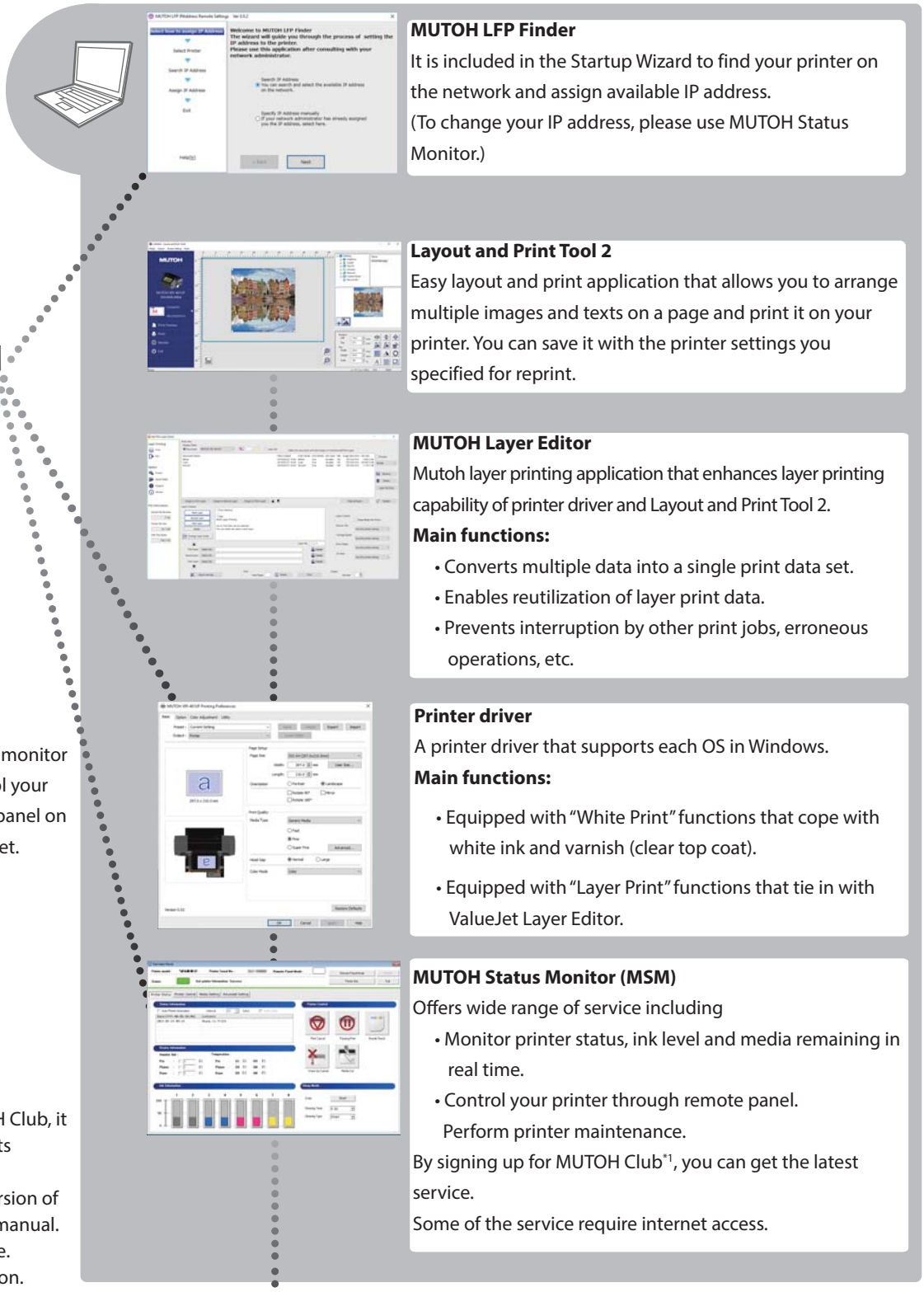
- Each indicator corresponds to the cartridge slots from Slot 1 through Slot 6. The leftmost indicator represents the ink level of the cartridge in Slot 1.
- In the display shown on the left, the slot 2 cartridge's ink is low, the slot 4 cartridge's ink has run out, and no cartridge has been inserted in slot 5.
- The following icons indicate the status of each slot:

	Remaining ink amount : More than 80%, less than 100%		Remaining ink amount : Less than 20% • The blinking indicates that smartchip recovery is being performed. ☞ "Smartchip recovery" P. 163
	Remaining ink amount : More than 60%, less than 80%		Ink Low
	Remaining ink amount : More than 40%, less than 60%		Ink End
	Remaining ink amount : More than 20%, less than 40%		No cartridge

The ink colors and slot locations for each color are shown below.



System configurations of this product



MUTOH LFP Finder
It is included in the Startup Wizard to find your printer on the network and assign available IP address.
(To change your IP address, please use MUTOH Status Monitor.)

Layout and Print Tool 2
Easy layout and print application that allows you to arrange multiple images and texts on a page and print it on your printer. You can save it with the printer settings you specified for reprint.

MUTOH Layer Editor
Mutoh layer printing application that enhances layer printing capability of printer driver and Layout and Print Tool 2.
Main functions:
- Converts multiple data into a single print data set.
- Enables reutilization of layer print data.
- Prevents interruption by other print jobs, erroneous operations, etc.

Printer driver
A printer driver that supports each OS in Windows.
Main functions:
- Equipped with "White Print" functions that cope with white ink and varnish (clear top coat).
- Equipped with "Layer Print" functions that tie in with ValueJet Layer Editor.

MUTOH Status Monitor (MSM)
Offers wide range of service including
- Monitor printer status, ink level and media remaining in real time.
- Control your printer through remote panel.
  Perform printer maintenance.

By signing up for MUTOH Club[*1], you can get the latest service.
Some of the service require internet access.

MSM Mobile
Enables you to remotely monitor printer status and control your printer through remote panel on your smartphone or tablet.

***1 MUTOH Club**
By signing up for MUTOH Club, it offers free useful contents including
- Download the latest version of application, operation manual.
- Download media profile.
- Check printer information. (printer information uploaded through MSM can be viewed)

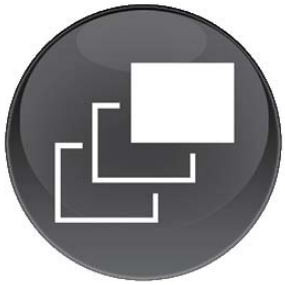
Internet

MUTOH Club server
Log into MUTOH Club.
https://club.mutoh.co.jp/mutoh/guser

Appropriate Use of Layout and Print Tool 2 and MUTOH Layer Editor

The CDROM supplied with this printer contains two print application; Layout and Print Tool 2 and MUTOH Layer Editor.
To perform layer printing on XPJ-461UF, please use Layout and Print Tool 2.

Each print application has following features.

	Layout and Print Tool 2	MUTOH Layer Editor
		
Functions	Enables to print more than one image layer by layer on the same media. Users can edit layer printing layout for up to 15 layers and save them.	• Receives print data from the printer driver. Users can assign the received data to each layer to perform layer printing. • To create print data file, use Layout and Print Tool 2 or other graphic applications.
Intended use	• Suitable for small print production or adding text to an image. • Recommended to use MUTOH Layer Editor for large print production.	Saves print data with format converted for the printer to print soon after sending from MUTOH Layer Editor and efficiently reprint the same data.
Image printing (PNG/TIFF)	○	×
Multi layer printing (Print layer by layer on the same media)	○	○
Single layer printing (Print 2 or 3 layers in one pass)	×	○
Change printer settings on output data	×	○ **(Change carriage speed, vacuum fan and more)**

Note

For more details of layer printing and supported file format, see the Layout and Print Tool 2 Operation Manual and MUTOH Layer Editor Operation Manual.

Displaying the Printing Preferences screen of printer driver

[1] Windows 11

Press the [Win] - [R] keys on your keyboard to open the Run command window.
In the search field, type “control”, then click [OK] or press the [Enter] key on your key board.
Click [Control Panel], then [Devices and Printers].

Windows 10

Click [Start], [All Apps], [Windows System], then [Control Panel].
In the screen that appears, click [Devices and Printers].

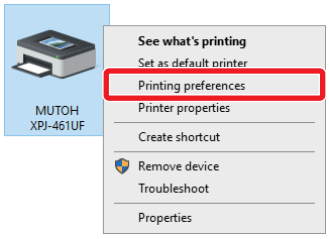
Windows 8.1

Display the charm bar on Desktop, and click [Settings]. Click [Control Panel] - [View devices and printers].

Note

Printer driver can run on Windows 11.

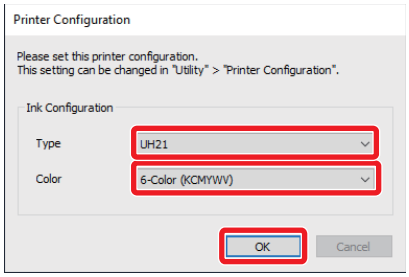
[2]



Right click the “MUTOH XPJ-461UF” icon and click [Printing preferences].

- The “Printer Configuration” dialog box opens only at the first time.
- The Printing Preferences screen of printer driver opens from the second time.

[3]

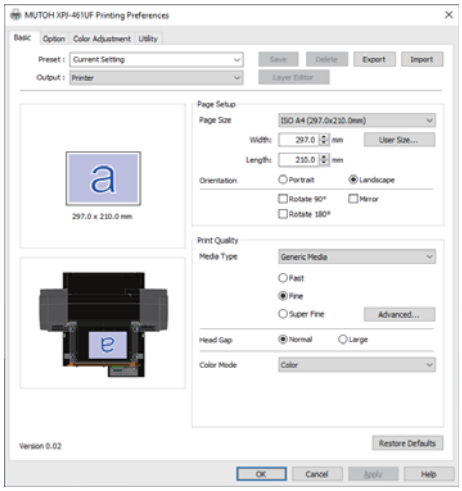


Select the ink type and the ink configuration settings and click [OK].

- After clicking, the Printing Preferences screen of printer driver opens.

Note

- If you use the Windows printer driver, make sure to select the ink type and the ink configuration settings of your printer.
- If you selected the wrong ink configuration, go to [Utility] > [Printer Configuration] and select the correct one.



Printing Preferences screen of printer driver

Launching/Displaying/Exiting MUTOH Status Monitor (MSM)

Launching MSM

Windows 11 / Windows 10

- Double click the MSM icon on the Desktop.

Windows 8.1

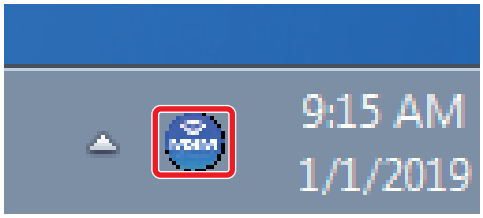
- In the [Start] screen, click [Desktop].
- Double click the MSM icon on the Desktop.

Note

Launching from the Start Menu of Windows

- Windows 11 / Windows 10
  From the [Start] menu, click [All Programs] (or [All Apps]) - [MUTOH] - [MUTOH Status Monitor].
- Windows 8.1
  Right click somewhere the [Start] screen tiles are not displayed to display the application bar, and click [All Apps].
  Click [MUTOH Status Monitor].

Displaying MSM



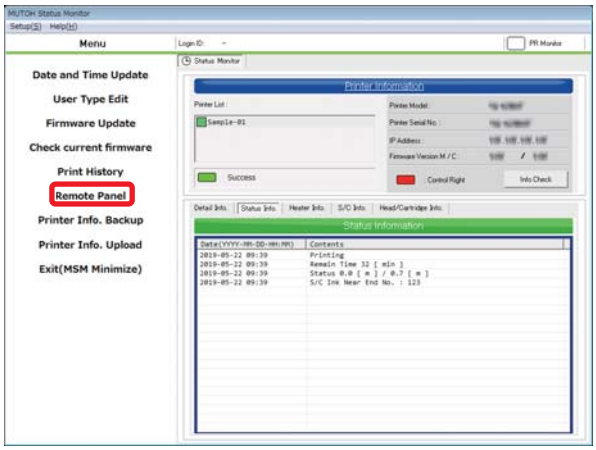
Double click the MSM icon in the task tray.

Displaying remote panel

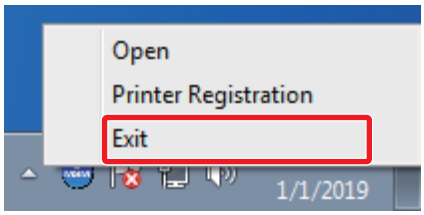
The remote panel allows you to view the printer status or remotely operate your printer.

Click [Remote Panel].

- The remote panel opens.



Exiting MSM



Right click the MSM icon in the task tray, and click [Exit].

Note

While using your printer, do not exit MSM. To close the MSM window, click [Settings] - [Close].

Windows 8.1

Click the Down Arrow in the [Start] screen.
Click [MUTOH Status Monitor].

Launching MUTOH LFP Finder

From the [Printer Registration] menu on the MUTOH Status Monitor, click "3. Search printer Assign/Change IP address".

Note

If ValueJet Finder has been already installed, uninstall the ValueJet Finder.

Launching Layout and Print Tool 2

Windows 11 / Windows 10

From the [Start] menu, click [All Programs] (or [All Apps]) – [MUTOH] – [Layout and Print Tool 2].

Windows 8.1

Display the charm bar on the desktop, and then click [Search].

Enter "Layout and Print Tool 2", and then click .
Click the "Layout and Print Tool 2" icon displayed in the search result.

Note

Layout and Print Tool 2 can run on Windows 11.

Launching MUTOH Layer Editor

Windows 11 / Windows 10

From the [Start] menu, click [All Programs] (or [All Apps]) – [MUTOH] – [MUTOH Layer Editor] in order.

Windows 8.1

Display the charm bar on the desktop, and then click [Search].

Enter "MUTOH Layer Editor", and then click .
Click the "MUTOH Layer Editor" icon displayed in the search result.

Note

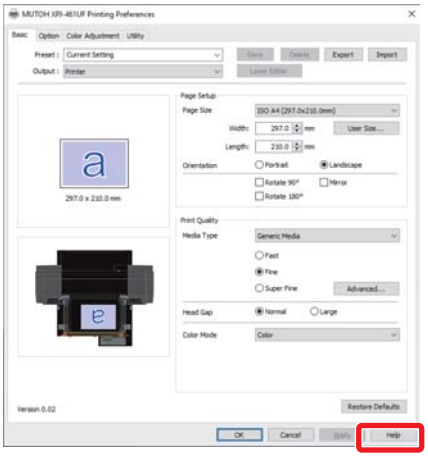
MUTOH Layer Editor can run on Windows 11.

Displaying Help

A Help menu is available in the printer driver and MUTOH LFP Finder.

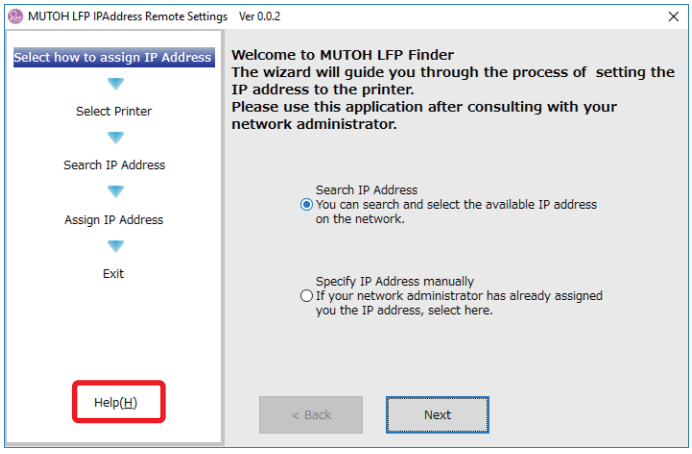
Printer driver

Open the Printing Preferences screen of printer driver, and click [Help].



MUTOH LFP Finder

Launch MUTOH LFP Finder, and click [Help].



Requirements for usable media

Media that meet the requirements below can be used with this printer.

Usable sizes

Maximum width	483 mm	
Maximum length	329 mm	
Maximum thickness	150 mm	
Surface height difference	With standard table installed	0 mm to 70 mm
	With standard table removed*	70 mm to 150 mm
	With optional vacuum table installed	0 mm to 70 mm
	approximately -0.5 mm maximum	
Weight (including jig)	With standard table installed	up to 5 kg
	With standard table removed	up to 8 kg
	With optional vacuum table installed	up to 4 kg

*A jig supported the thickness of media to be used is required for printing.

Important!

The minimum media width and length that are settable in the User Type for the printer are 30 mm × 30 mm. To print onto media with dimensions smaller than these, you should take precautions to prevent the table from being dirtied with ink.

Note

Contact your local MUTOH dealer about roll media recommended for your printer.

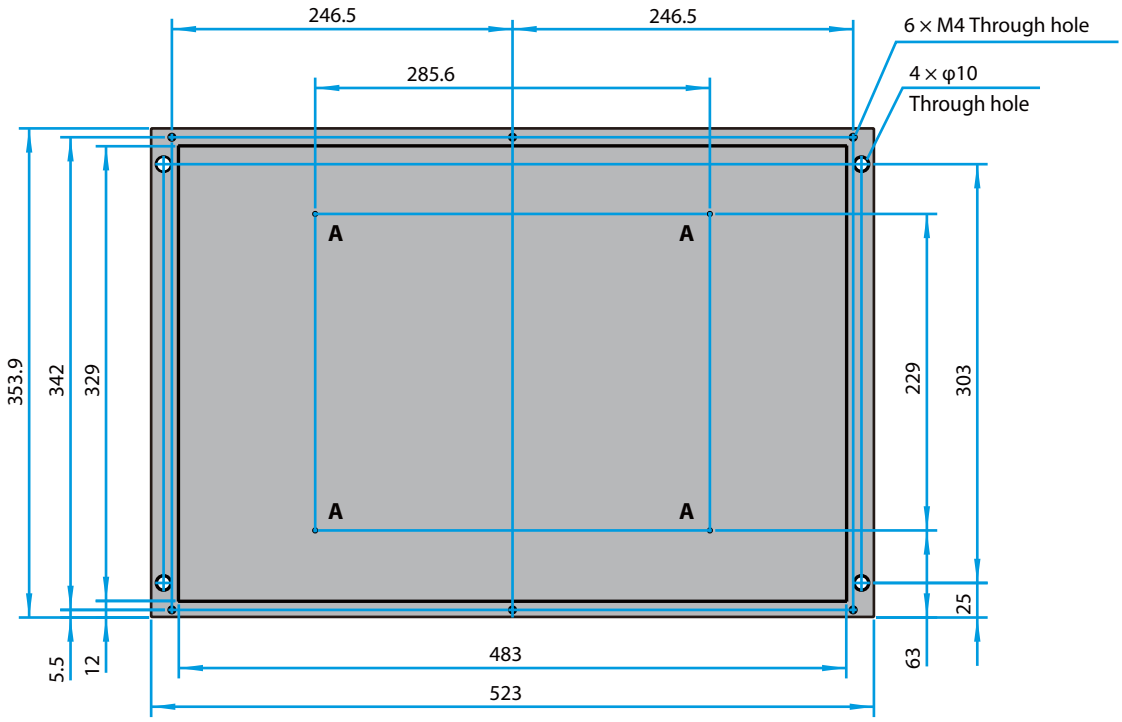
Cautions for handling media

- Do not use media that is sensitive to heat.
  The heat given off by the UV rays could deform such media, or affect its image quality, or cause it to contact with the head.
- If printing onto a solid object that is liable to roll (such as a golf ball or ballpoint pen), use a jig or similar to stop it from rolling.
- Printing on non-flat surface media will generate ink mist, causing malfunction or damage to the printer.
- If you are printing on non-flat surface media and there is large distance between the print head and media, you may not be able to achieve predictable print quality.
  To print on such media with more than 0.5 mm height difference, it is recommended to use the "Low Speed" printing mode. It allows you to print on media up to 2.0 mm height difference and helps to minimize the ink mist, ink bleeding or layer shift.
  ☞ **"** > 7: Low Speed" P. 77**
- Printing on a light reflective material may have a chance to cure the ink on the print head, causing malfunction or damage to the product. To print on such materials, it is recommended to mask the non-print area on the material.

Table Dimensions & Diagrams

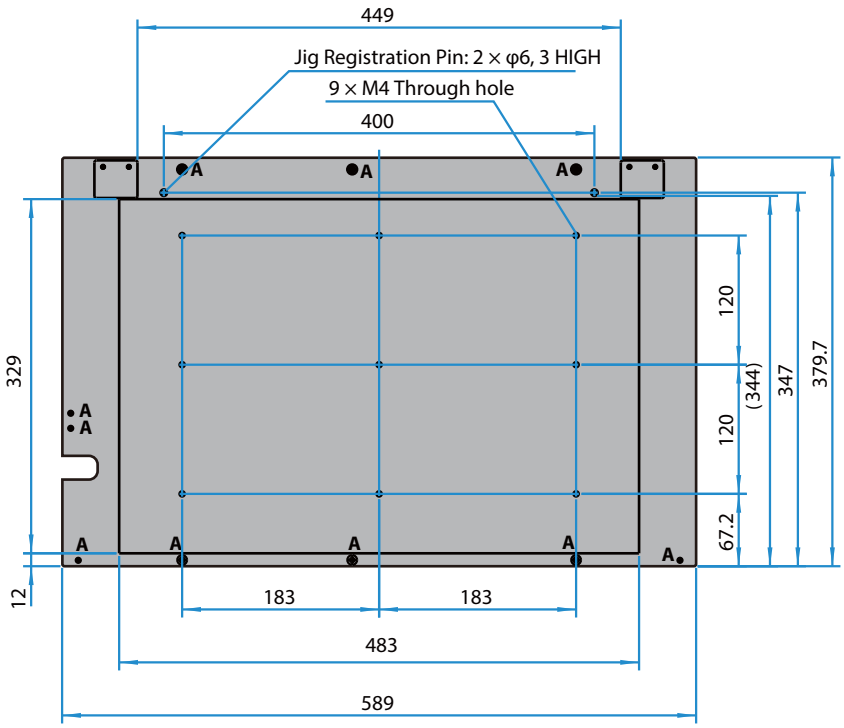
The diagrams below show the dimension of the standard table, base table and optional vacuum table on this product.

Standard Table



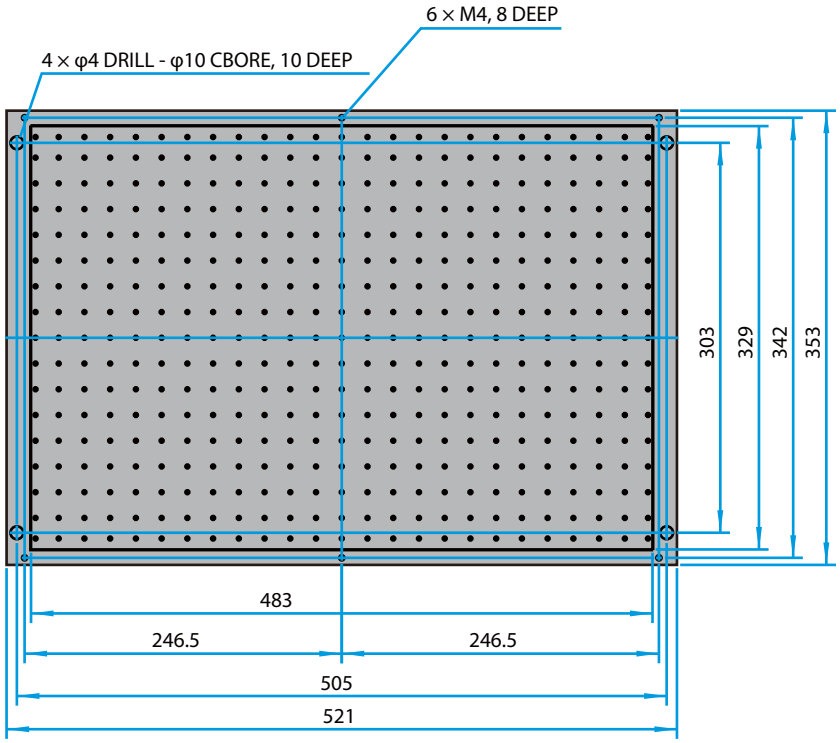
*** [A] Do not insert into the hole.**

Base Table



*** [A] Do not insert into the hole.**

Optional Vacuum Table



Precautions when using this product

Do not turn the power off

Use the printer with its power turned permanently on. When you are not using the printer, always leave the power on and put the printer into the sleep mode. In the sleep mode, the printer will periodically circulate the ink inside the printer and carry out head cleaning automatically. If you do not put the printer into the sleep mode, the ink inside the printer could settle out and/or coagulate, causing poor image quality or printer failure.

Please handle ink carefully

- Before operation, make sure to read the Safety Data Sheet (SDS).
- Do not disassemble ink cartridge (or ink bag).
  Ink may come into contact with your eyes or skin, causing irritation or allergic reaction.
- Wear gloves, goggles or protective eyewear, protective mask, protective clothing when handling ink.
- DO NOT drop or hit an ink cartridge (or ink bag).
  Ink may leak from the container.
- Be sure to use the ink before it expires.
  Using expired ink can cause damage to the printer. Replace with a non-expired one even it has ink remaining.
  The expired ink should be disposed of as industrial waste. The empty ink cartridge (or ink bag) should be put in a plastic bag and should be disposed of according to the local regulations.
- MUTOH strongly recommends to use genuine ink.
  This printer is designed to bring out the best performance when using with the MUTOH genuine ink.
  Non-MUTOH ink may cause print defects or damage to the printer.

Avoid direct contact with uncured ink

- The curing time for Mutoh UV ink varies by surface properties of media you use. Particularly a low ink density area on a print takes longer time to be cured (approximately one hour).
  When you check if your print is fully cured, be sure to wear protective gloves.
- When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.
- Especially during operations where ink might contact you (e.g. handling ink or waste fluid, cleaning of print head/cap/wiper), always wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.
- If glove becomes contaminated with ink, replace it with new.
- If ink gets on skin, immediately wash with soap and plenty of water for 15 minutes. Seek medical advice/attention if irritation or inflammation are present.
- If ink gets in eyes, flush eyes with plenty of water for 15 minutes and seek medical advice/attention immediately.
- If swallowed, rinse mouth immediately and do not induce vomiting. Seek medical advice/attention.

Agitate the ink

Before installing a new ink cartridge (or ink bag), invert it back and forth to agitate ink. Periodical ink agitation is also required when prompted on the operation panel.
Otherwise, the ink inside the ink cartridges (or ink bags) settles or coagulates and may cause poor print quality or a malfunction.

Please use this product at least once a week

If the printer is not used for a long time, the print head nozzles can get clogged causing damage to the printer.

Conduct periodic maintenance

This product requires daily maintenance.

- Perform the Nozzle check before and after printing.
  If nozzle clog is found, conduct a head cleaning.
- Make sure to perform daily maintenance after you finish printing for the day.
  Failure to perform daily maintenance may affect print quality or result in damage to the printer.
  ☞ **"Daily Maintenance" P. 126**
- If you are not using the printer for an extended period*, put it into sleep mode and then perform followings.
  *"Extended period" means one to four weeks.
  - Agitate the ink.
  - Check the ink level and replace the relevant ink cartridge if “Ink Low” is displayed.

  If you may not be able to perform above, follow the instructions of **"If not using the printer for a long time" P. 25** and power off the printer.
- Empty the waste ink tank when needed.
- Clean the interior of the printer once a month.

Some parts need to be replaced periodically

In this product, following parts need to be replaced after a long-term use.

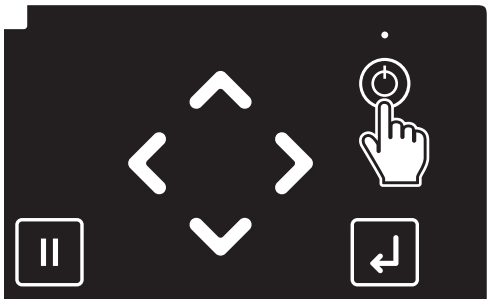
- Parts required to be replaced by users: Absorption material for the flushing box, Cleaning wiper, UV-LED lamp filter, UV-LED lamp emitting window glass.
- Parts required to be replaced by service personnel: Various motors, Pumps, Print head, Head cap unit, UV-LED lamp

Powering ON / OFF

Turning the power ON

[1] Close the front cover.

[2]



Long press the Power button.

- The keys on the operation panel light up.
- The printer will start mechanical initialization.

Note

When the message "Welcome" appears and the LED lights on the panel turns on, release the button.

Turning the power OFF

If you need to power off your printer temporarily, follow these steps.

Important!

- **Use the printer with its power turned permanently on. When you are not using the printer, always leave the power on and put the printer into the sleep mode while not in use. If you do not put the printer into the sleep mode, the ink inside the printer could settle out and/or coagulate, causing poor image quality or printer failure.**

  ☞ "Sleep Mode" P. 28

- **If you are not using the printer for an extended period of time (up to one month), follow these steps to power off the printer.**

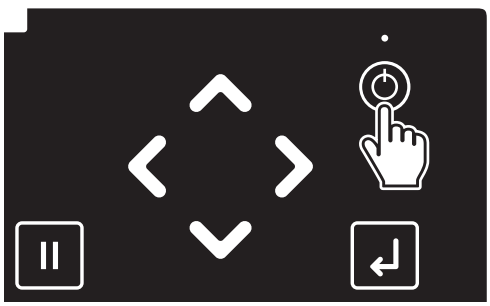
  ☞ "If not using the printer for a long time" P. 25

[1] Check that the printer completes printing and no object including a jig is loaded on the table.

[2] Prepare items required for daily maintenance.

☞ "Preparing for Daily Maintenance" P. 127

[3]



Long press the Power button.

Note

To skip a daily maintenance and power off the printer, tap [Cancel].

☞ "Powering off the printer without daily maintenance" P. 27

- Powering off the printer without daily maintenance will cause ink accumulation around the print head, leading to damage to the printer.
  Normally, be sure to perform daily maintenance.

[4]

Daily Maintenance
Start —> Enter

Tap [Enter].

Please Wait

The table moves to the front side of the printer.

[5]

Unload Media
then Tap Enter

Remove the media and the jig on the table, and then tap [Enter].

Please Wait

- The table, carriage and cleaning wiper move to gain access to daily maintenance.

[6]

Daily Maintenance
End —> Enter

The message on the left will appear.

- You can start daily maintenance.

☞ "Performing Daily Maintenance" P. 129

- After the daily maintenance is complete, tap [Enter].

Please Wait

The message on the left will appear.

[7]

Cleaning **%

The printer automatically performs the Short cleaning.

[8]

Power Off

After the Short cleaning, this printer will start turning off.

If not using the printer for a long time

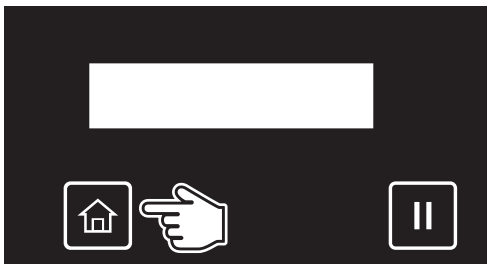
If your printer will be not in use for a long period of time (up to one month), follow these steps to power off the printer.

1. Performing Daily Maintenance

[1] Check that the media and jig are removed from the printer.

[2] Prepare items required for daily maintenance.

☞ "Preparing for Daily Maintenance" P. 127

[3] 

Tap [Home].

[4]

```
Menu3
Maintenance
```

- Use ▼ to choose the menu shown left.
- Tap ❯.

[5]

```
Maintenance7
Daily Maintenance
```

- Use ▼ to choose the menu shown left.
- Tap ❯.

[6]

```
Daily Maintenance
Start          ->   Enter
```

Tap [Enter].

```
Please Wait
```

The table moves to the front side of the printer.

[7]

```
Unload Media
then Tap Enter
```

Remove the media and the jig on the table, and then tap [Enter].

```
Please Wait
```

- The table, carriage and cleaning wiper move to gain access to daily maintenance.

[8]

```
Daily  Maintenance
End            ->   Enter
```

- You can start maintenance.

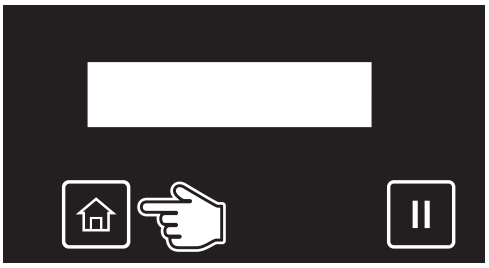
☞ "Performing Daily Maintenance" P. 129

- Once the maintenance is finished, close the front cover, then tap [Enter].

☞ "Finishing maintenance" P. 138

2. Discharging ink from the printer

[1]



Tap [Home].

[2]

Menu3
Maintenance

- Use ▼ to choose the menu shown left.
- Tap ▶.

[3]

Maintenance5
Ink Discharge

- Use ▼ to choose the menu shown left.
- Tap ▶.

[4]

Ink Discharge
Start —> Enter

Tap [Enter].

[5]

Empty Waste Ink Tank
then Tap Enter

Drain the waste ink into the container, then tap [Enter].

☞ **"Drain waste ink into a container" P. 123** under **"Emptying waste ink tank"**

[6]

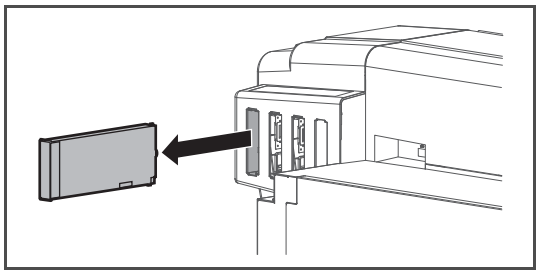
Empty the Tank
Yes

- Use ▲ or ▼ to choose the message "Empty the Tank? Yes".
- Tap [Enter].

Remove Cartridge

The message on the left will appear.

[7]



Remove the ink cartridges (or high-capacity ink pack adapters) from all the cartridge slots.

The message on the left will appear.

- Discharging the ink will start.

When the message on the left appears, transfer the waste ink into a container.

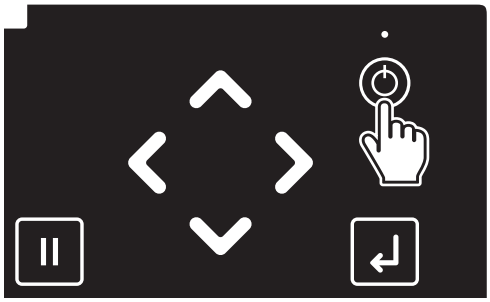
☞ "Drain waste ink into a container" P. 123 under "Emptying waste ink tank"

[8] Reset the waste ink counter.

☞ "Resetting waste ink counter" P. 125

3. Powering off the printer without daily maintenance

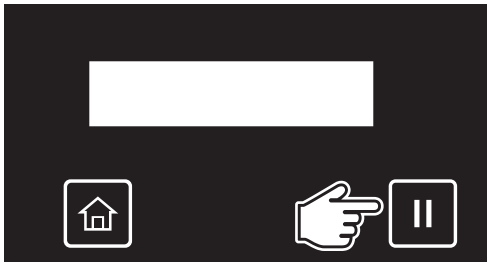
[1]



Long press the Power button.

The message on the left will appear.

[2]



Tap [Cancel].

Note

This will skip a daily maintenance.

Important!

Make sure to perform daily maintenance before powering off the printer.
Failure to do so will cause nozzle clogging.

[3]

The printer will start turning off.

Sleep Mode

When you are not using the printer, always leave the power on and put the printer into the sleep mode while not in use. If you do not put the printer into the sleep mode, the ink inside the printer could settle out and/or coagulate, causing poor image quality or printer failure.

Make sure to follow the instructions on the operation panel to perform daily maintenance.

The following operations are performed during sleep mode.

- Automatic head cleaning by timer set in the “SetTimer” Menu.
- Ink circulation
- “Little Charge”

Important!

To leave the printer in sleep mode for seven days or more, perform followings once a week:

- **Check the ink level and replace the relevant ink if “Ink Low” is displayed.**
  ☞ **"Replacing ink" P. 118**
- **Agitate the ink.**
  ☞ **"Agitating ink" P. 114**

Steps

[1] Make sure that the printer’s operating condition is as follows:

- The Front cover and the PG handle cover are closed.
- No object including a jig is loaded on the table.
- The remaining ink level is sufficient.
- The waste ink bottle has enough space.

Important!

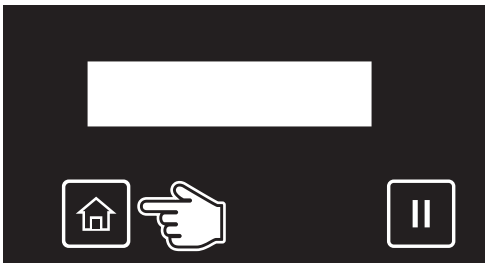
If you are going to use the sleep mode for a prolonged period of time, first empty the waste ink tank.

☞ **"Emptying waste ink tank" P. 122**

[2] Prepare items required for daily maintenance.

☞ **"Preparing for Daily Maintenance" P. 127**

[3]



Tap [Home].

[4]

- Use ▼ to choose the menu shown left.
- Tap ▶.

[5]

Tap ▶.

[6]

Sleep Mode
Start —> Enter

Tap [Enter].

[7]

Daily Maintenance
Start —> Enter

Tap [Enter].

Please Wait

The table moves to the front side of the printer.

[8]

Unload Media
then Tap Enter

Remove the media and the jig on the table, and then tap [Enter].

Please Wait

- The table, carriage and cleaning wiper move to gain access to daily maintenance.

[9]

Daily Maintenance
End —> Enter

The message on the left will appear.

- You can start daily maintenance.

☞ "Performing Daily Maintenance" P. 129

After the daily maintenance is complete, tap [Enter].

Please Wait

The message on the left will appear.

Cleaning **%

The printer automatically performs the Short cleaning.

[10]

Sleep Mode
End —> Enter

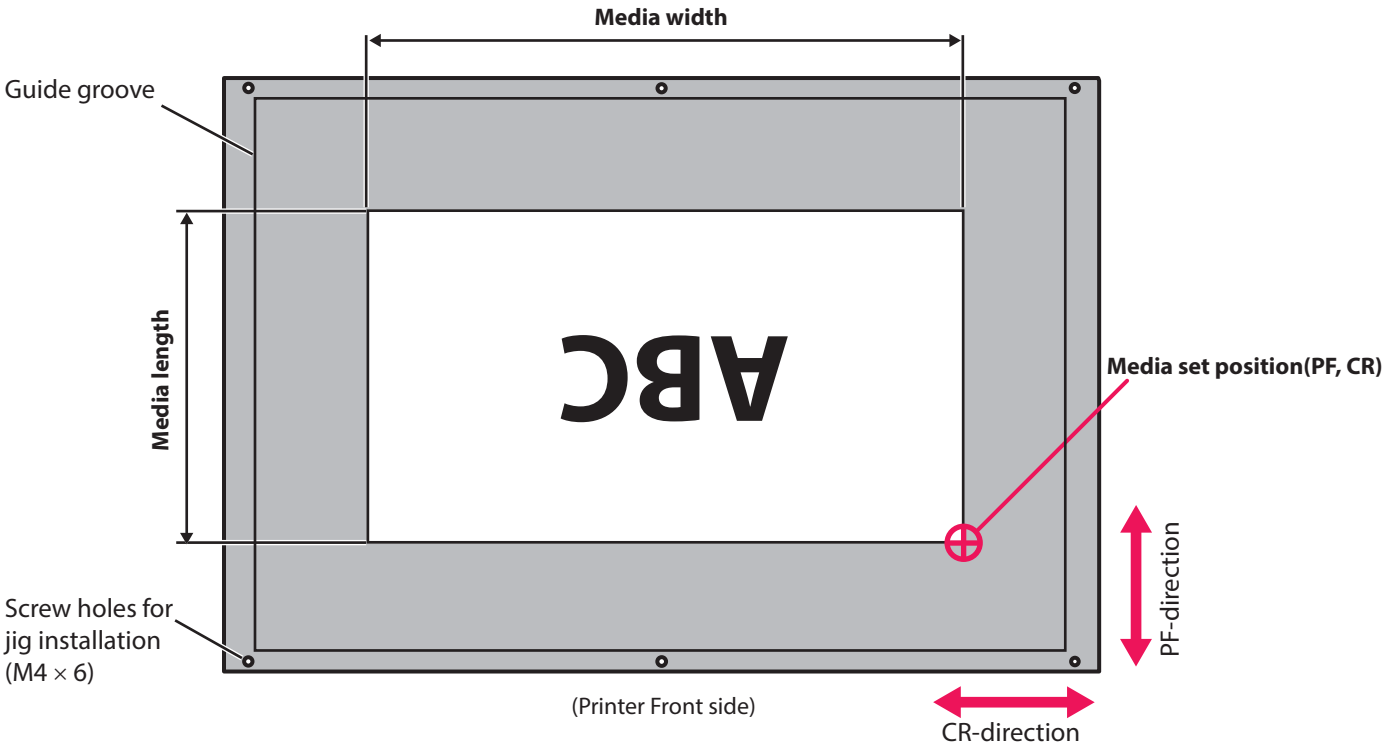
- The sleep mode will start.
- To exit the sleep mode, tap [Enter].

Note

- While in sleep mode, the small LED light above the power button flashes every 5 seconds.
- To set the timer for automatic head cleaning during sleep mode, see "Sleep Mode 2: Cleaning Timer" P. 105.
- Depending on the elapsed time from the previous automatic maintenance, the printer may automatically execute head cleaning and/or ink charging, etc., when it exits the sleep mode. Such operation does not depend on the sleep mode settings. It is an automatic maintenance function of the printer.

Printing area

- When loading new media, you need to enter the media size (width and length) and origin position (print start position) from the operation panel.
- The guide groove on the table shows the maximum printable area (483 mm × 329 mm).
- Use the screw hole (M4) to attach your own jig.
- Printing is always started from Origin position (print start point).
- The figure below is an example of when printing on medial loaded on the standard table.
- See **"Table Dimensions & Diagrams" P. 19** for detailed dimension.



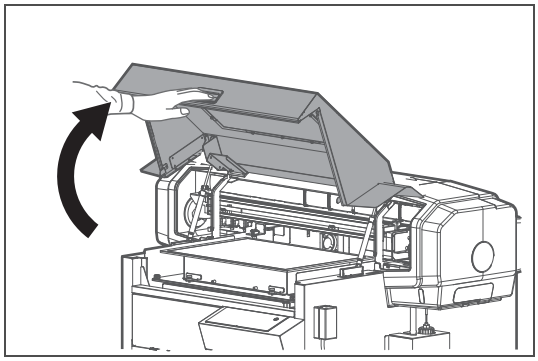
1. Placing the media on the table

[1]

Set media, then
Tap [∧] key.

Check that the message on the left is displayed.
If not displayed, tap ∨.

[2]



Hold the handle on the front cover to gently open it.

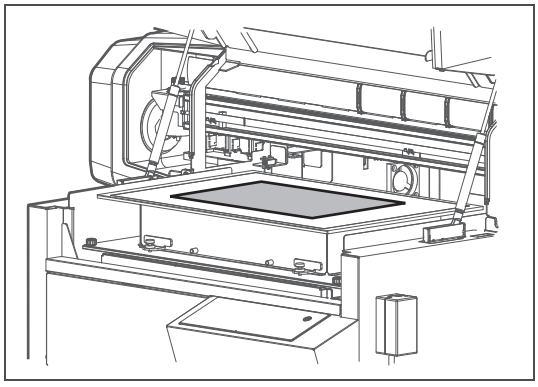
Set media, then
close cover.

The message on the left will appear.

Set media, then
close cover. **∧2∨**

When using the optional vacuum table, you can change the vacuum power of the current job by tapping ∧ or ∨ while the message on the left appears on the panel. The vacuum power can be selected between 0 and 4 (0: turn the vacuum fan off).
The vacuum fan turns on by tapping ∧ or ∨.
The change made will be saved in the user type currently selected.

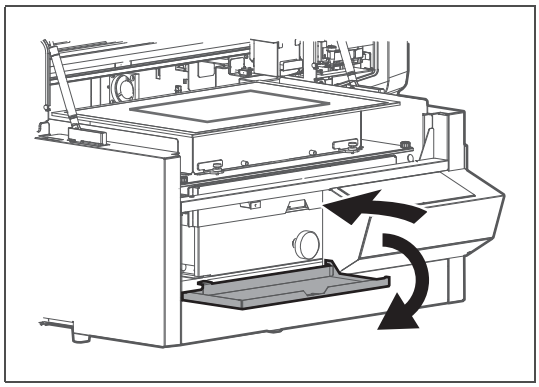
[3]



Place the media on the table.

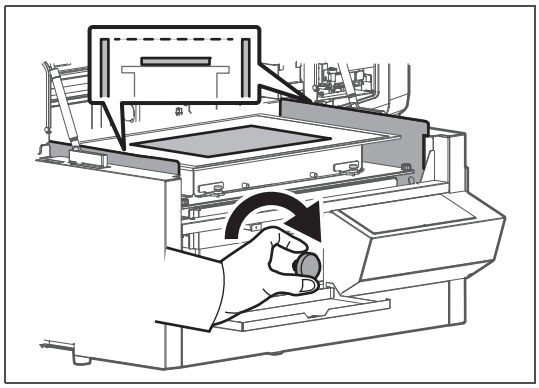
2. Adjusting the table's height

[1]



Open the PG handwheel cover, by pressing on it.

[2]



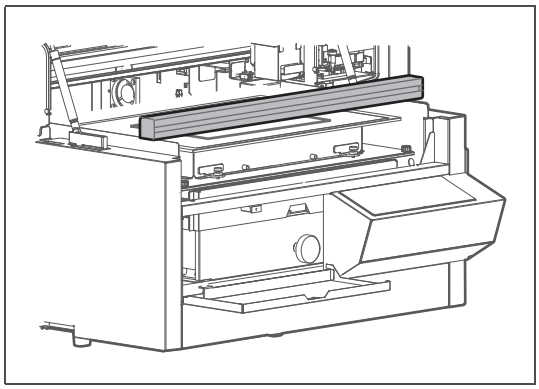
Turn the PG handwheel to lower the table.

- Lower it until the surface height of the media gets lower than the height of side plates on both sides.

Note

Turn the PG handle clockwise.

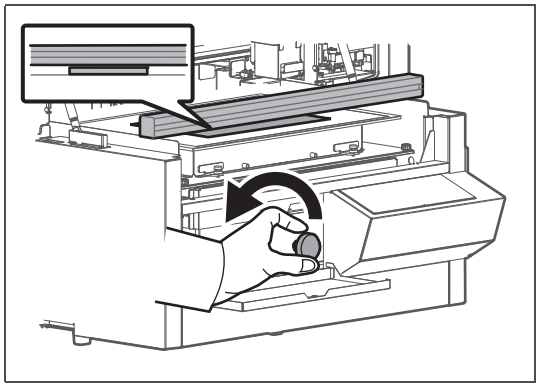
[3]



Place the media height guide on the side plates over the table.

- Make sure that the media height guide is placed on the side plates on both sides.

[4]

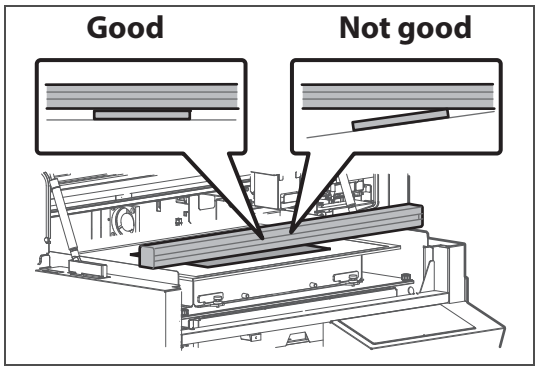


Turn the PG handwheel to raise the table to the position where the media touches the media height guide.

Note

Turn the PG handle anti-clockwise.

[5]



Check that there is no gap between the media height guide and your media.

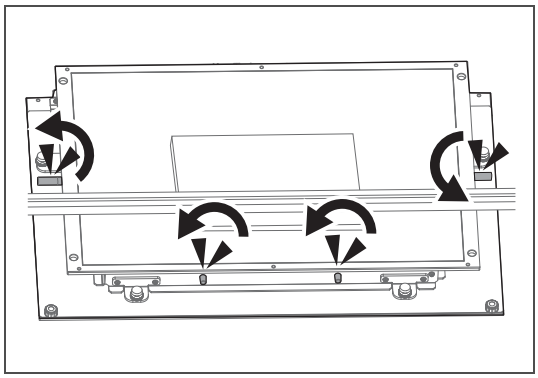
- If no gap, move to "Specify the print start position" P. 36.
- If the table is not level and creates gap, move to "Leveling the table" P. 33.

Note

If you are using media with long length, check the gap at both top and bottom side of the media to ensure no gap between the media height guide and media.

3. Leveling the table

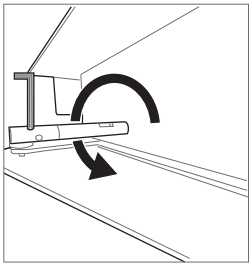
[1]



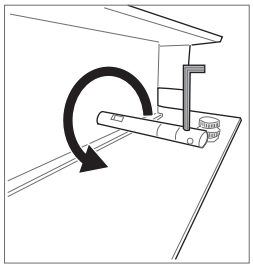
Loosen four table height fixing screws.

- There are two screws in front and one screw each on both sides of the table.
- Rotate them anti-clockwise to loosen.

Note



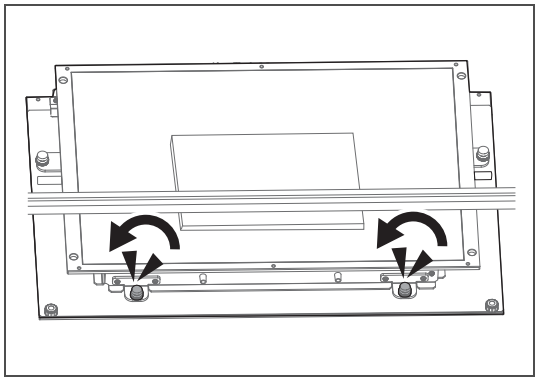
Left



Right

- If the height fixing screws on the side of the table do not rotate easily, use the hexagon wrench to loosen.
- When looking from the front of the printer, turn the screw on the left side to the back (anticlockwise).
- Turn the screw on the right side to the front (anticlockwise).

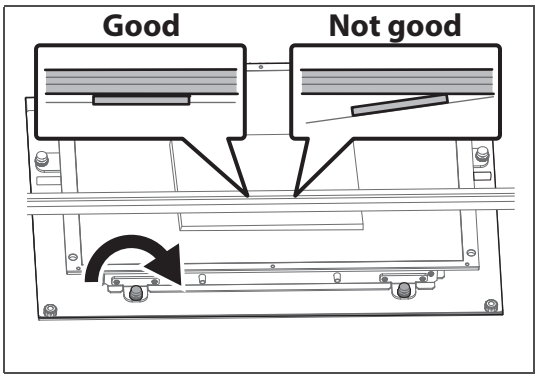
[2]



Loosen two thumb screws with nuts securing two adjusters on the front side of the table.

- Rotate them anti-clockwise.

[3]



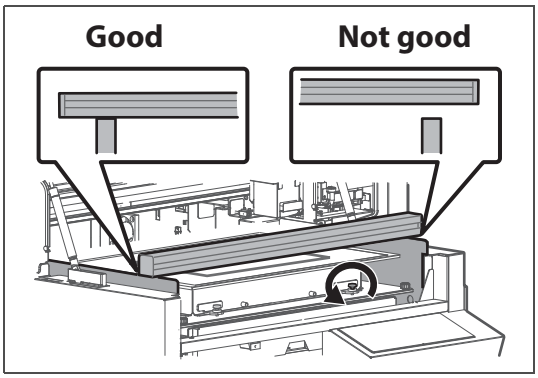
Rotate the thumb screw of the adjuster on the side with gap to raise the table.

- Rotate it clockwise.
- Raise the table until no gap is present in between.

Note

- In the "Not good" example on the left, use the adjuster on the left to level the table.
- If the table does not raise smoothly, try to loosen the thumb screws of the adjusters on both sides (Once leveled, tighten the thumb screws).
- Be sure not to raise the table too high.

[4]



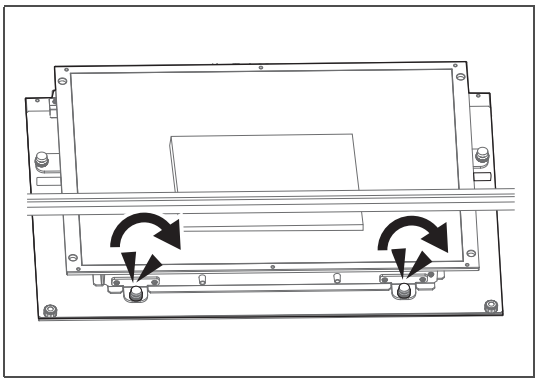
Check that no gap is present between the media height guide and side plates on both sides.

- If gap exists, use the adjusters on the side where gap is present to lower the table.

Note

- In the "Not good" example on the left, use the adjuster on the right to level the table.
- Rotate them anti-clockwise.

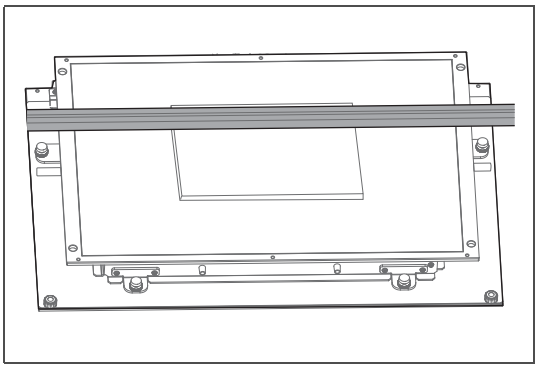
[5]



Tighten two adjuster nuts on the front side of the table.

- Turn the nuts clockwise to tighten.
- If the media sits on the front half of the table only, move to Step 10.
- If the media loaded covers more than half area of the table, move to Step 6

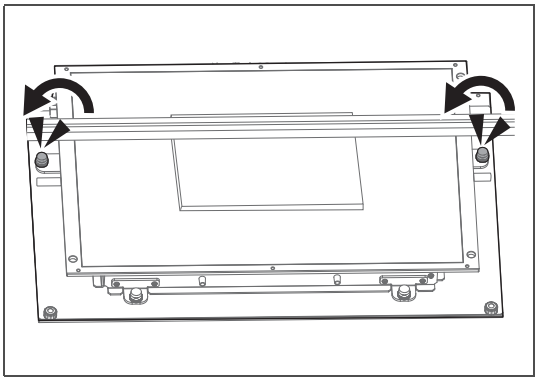
[6]



Place the media height guide on the side plates over the table.

- Make sure that the media height guide is placed on the side plates on both sides.

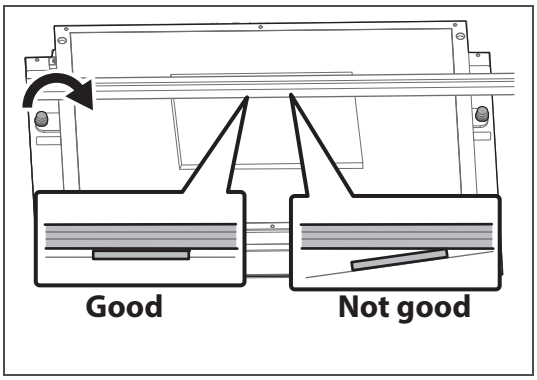
[7]



Loosen the thumb screws with nuts securing the adjusters on both sides of the table (one each).

- Rotate them anti-clockwise.

[8]



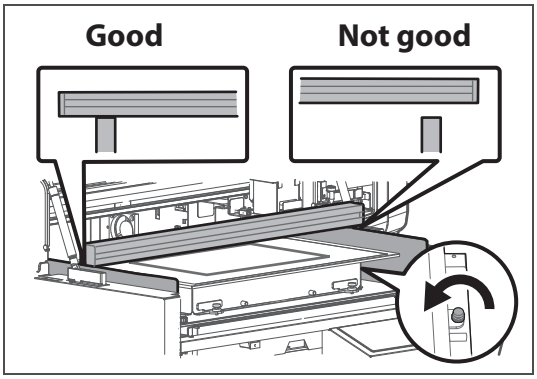
Rotate the thumb screw of the adjuster on the side with gap to raise the table.

- Rotate it clockwise.
- Raise the table until no gap is present in between.

Note

- In the example "Not good" on the left figure, use the adjuster on the left side to level the table.
- Be sure not to raise the table too high.

[9]



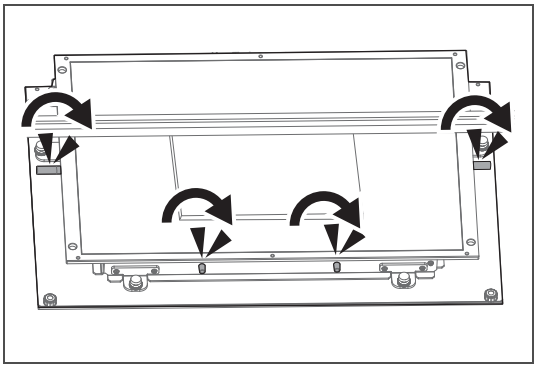
Check that no gap is present between the media height guide and side plates on both sides.

- If gap exists, use the adjusters on the side where gap is present to lower the table.

Note

- In the example "Not good" on the left figure, use the adjuster on the right side to level the table.
- Rotate them anti-clockwise.

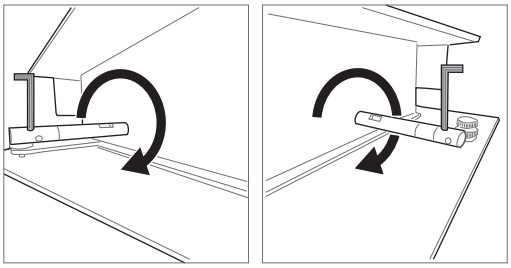
[10]



Tighten four table height fixing screws.

- Rotate them clockwise to tighten.

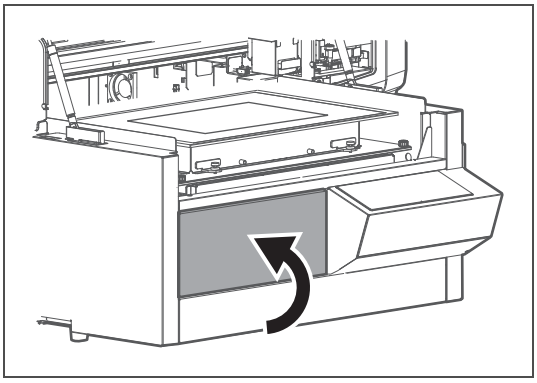
Note



Left Right

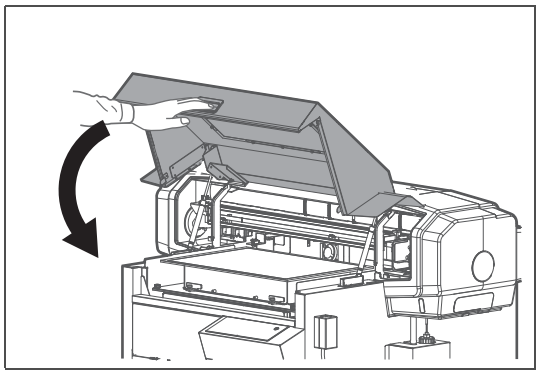
- If the height fixing screws on the side of the table do not rotate easily, use the hexagon wrench to loosen.
- When looking from the front of the printer, turn the screw on the left side to the front (clockwise).
- Turn the screw on the right side to the back (clockwise).

[11]



- Remove the media height guide.
- Close the PG handwheel cover.

[12]



Hold the position shown on the left and gently close the cover.

4. Specify the print start position

[1]

Tap ∧.

The message on the left will appear.

- The table will move inward, and a check will be run using the obstacle sensor, to make sure that the media will not contact with the head.

Note

If the table is still positioned too high, the following will appear "Obstacle Detected Tap [∨] key".

Tap ∨ and readjust the table's height.

☞ "Adjusting the table's height" P. 32

[2]

Tap [Enter].

Note

- This menu only appears when the User Type are selected for the first time.
- If you select "On", you will have to input the media width, media length and origin position after tapping ∧ each time you set a media on the table.
- If you select "Off" via ∨, "Ready to Print" will be displayed after tapping ∧ each time you set a media on the table.
  In that case, the currently selected User Type values will be used for the media width, media length and origin position.
- Even if "Off" is selected, you can enter media height, obstacle detect, media size and origin position from the "**: Media Setting1 Set Media" by tapping [Cancel] while the message "Print Ready" or "Set media, then Tap[∧] key." appears on the panel.

[3]

Tap [Enter]

[4]

Use the ▲ or ▼ to input the media width.
Tap [Enter].

Note

- These menu items will only appear if "On" is set for "Detailed-Set".
- Any value from 30 mm to 483 mm can be set for the width.

[5]

Use the ▲ or ▼ to input the media length.
Tap [Enter].

Note

Any value from 30 mm to 329 mm can be set for the length.

[6]

- Use ▲ or ▼ to enter the PF (longitudinal) value.
- Use ◀ or ▶ to enter the CR (lateral) value.
- Tap [Enter].

Note

any value between the following range can be entered:

PF value: 0.0 to 309.0
CR value: 0.0 to 463.0

- The table will move inward.
- The carriage will move to the set position, with its LED pointer lit steady.

[7]

Check the position of the LED pointer.

- If it shows the correct position, tap [Enter].
- If it is not in the intended position, adjust the origin position as follows:
  - Use ▲ or ▼ to move the table forward/backward.
  - Use ◀ or ▶ to move the LED pointer leftward/rightward.
  - Tap [Enter].

The message on the left will appear.

That completes setting of the media.

Nozzle check and cleaning

Before starting everyday operation, please perform nozzle check printing to check the print head condition. If nozzle clog is found, conduct cleaning.

This printer offers the following 2 kinds of nozzle checks:

- Nozzle Check - Prints the nozzle check patterns
  ☞ "For the Nozzle Check pattern printing" P. 39
- Nozzle Check B - Prints the nozzle check patterns on the partially colored background.
  ☞ "For the Nozzle Check B pattern printing" P. 40

Note

- "Nozzle Check B" will only appear in the menu if 6-color is set.
- When using white ink, colored media, transparent films or semi-transparent films (such as OHP film, tracing paper and more) are recommended to use for nozzle check.

1. Run a nozzle check print

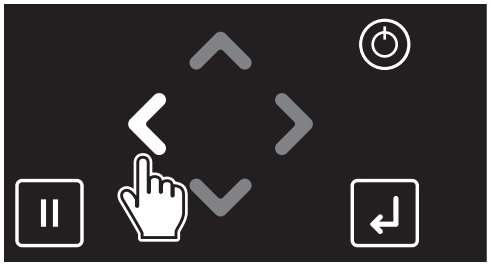
For the Nozzle Check pattern printing

[1] Load a roll media for Nozzle check.
☞ "Loading media" P. 31

[2]

Check that the message on the left is displayed.

[3]



Tap .

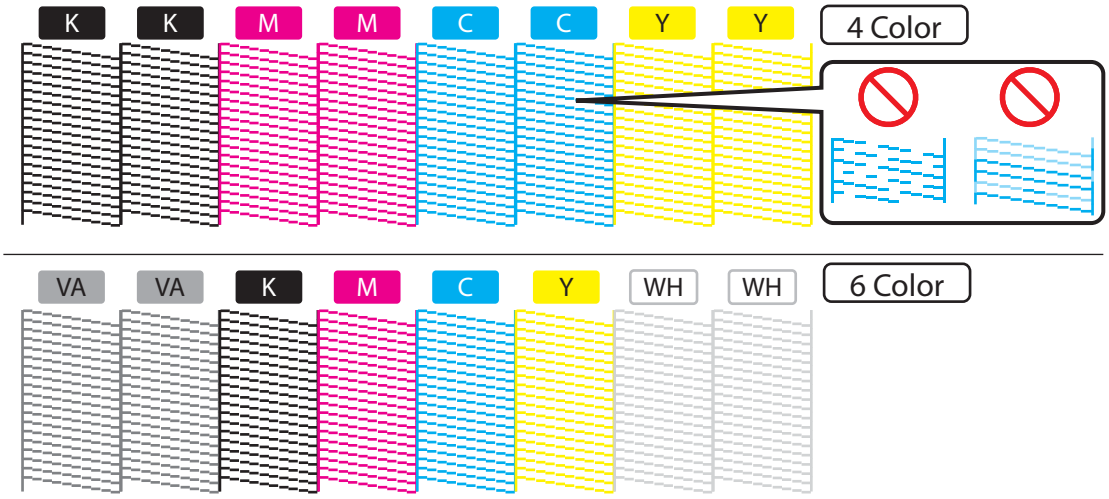
[4]

Tap [Enter].

- The printer will print the nozzle check pattern.

[5] Look at the print.

- If you find missing or thin lines on the print, go to "Perform cleaning" P. 41.
- If all lines are clearly printed, go to "Starting printing" P. 42.
- The figure below are examples of the Nozzle Check patterns.



Note

The printer information (date and time of printing, printer's serial number, firmware version) is printed on the nozzle check pattern.

For the Nozzle Check B pattern printing

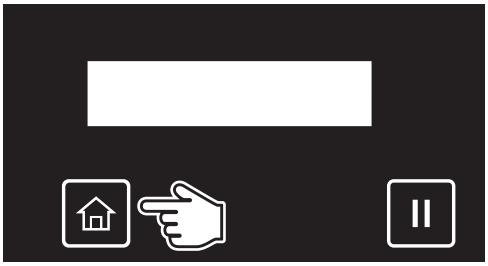
[1] Load a roll media for Nozzle check.

☞ "Loading media" P. 31

[2]

Check that the message on the left is displayed.

[3]



Tap [Home].

[4]

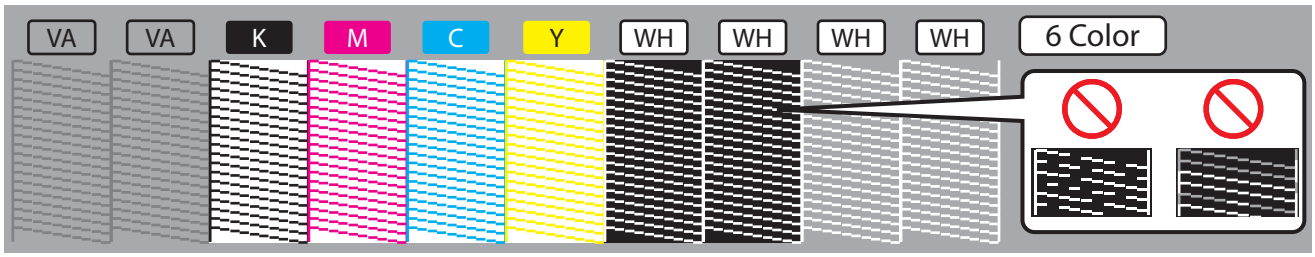
- Use ▼ to choose the menu shown left.
- Tap ▶.

[5]

- Use ▼ to choose the menu shown left.
- Tap [Enter].

[6] Look at the print.

- If you find missing or thin lines on the print, go to "Perform cleaning" P. 41.
- If all lines are clearly printed, you can start printing.



Note

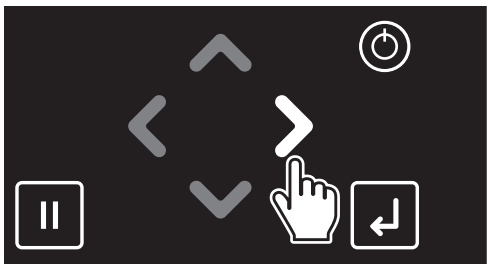
- The figure above is an example of the Nozzle Check B pattern. In this example, non-colored background area is shown in gray.
- Printer information (Data and time printed, serial number, firmware version) is printed next to the pattern.

2. Perform cleaning

[1]

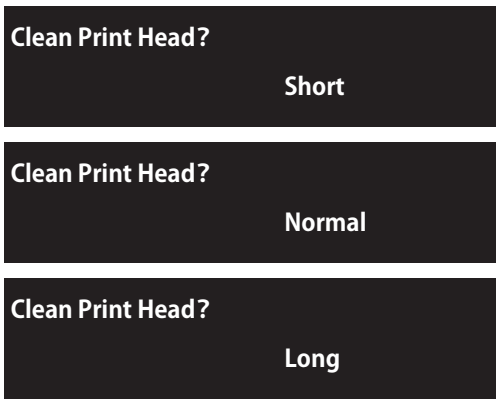
Check that the message on the left is displayed.

[2]



Tap ❯.

[3]



Use ^ or v to choose the cleaning mode.
Tap [Enter].

- The printer will start cleaning.

[4] Run a nozzle check print again.

☞ "Run a nozzle check print" P. 39

- If the nozzles do not recover after several normal cleaning attempts, try "Long" or "Little Charge" cleaning.
  For the details of cleaning, see "Head cleaning" P. 135.

Note

If "Long" or "Little Charge" cleaning does not help to recover the nozzles, go to "Advanced Settings 11: Select Nozzle" P. 87 to select the nozzles that fire properly.

Starting printing

Printing from the Layout and Print Tool 2

You can lay out and print out the images using the bundled CD-ROM software, Layout and Print Tool 2.
This section explains the basic printing instructions only. For the details, see the operation manual for Layout and Print Tool 2.
Layout and Print Tool 2 supports following graphic file formats:

- PNG (.png)
- TIFF (.tif)

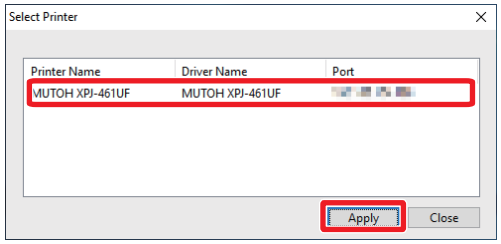
Note

For the details of supported file format, see the Layout and Print Tool 2 Operation Manual.

[1] Start Layout and Print Tool 2.

"Launching Layout and Print Tool 2" P. 16

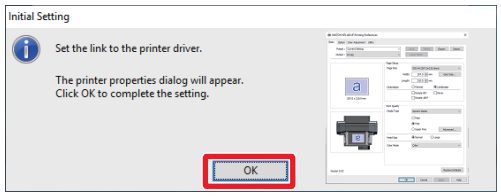
[2]



Select the printer driver.

- Click [Apply].

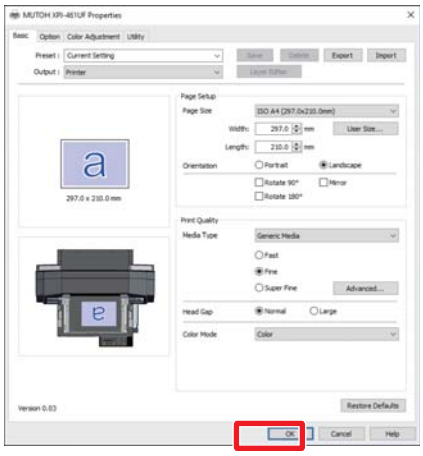
[3]



If the driver settings have not been completed, the dialog on the left will appear.

- Click [OK].

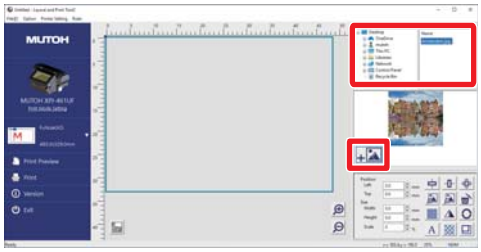
[4]



The dialog on the left will appear.

- Click [OK].

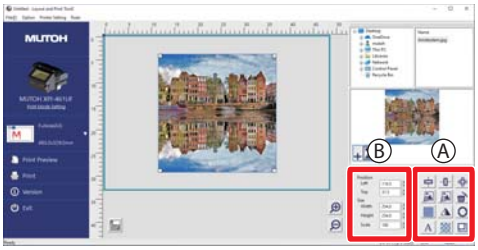
[5]



Select the image to be used in printing.

- Click the button to insert the image.

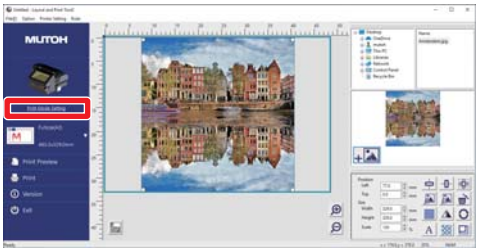
[6]



Align the image by using the following methods:

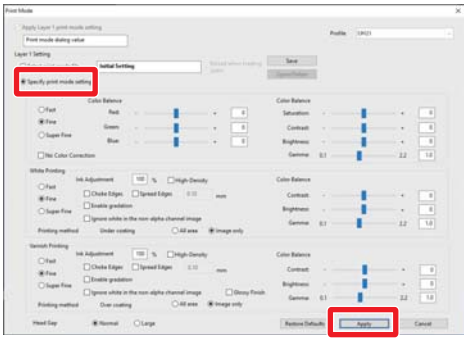
- Click the edit buttons (A on the left illustration).
- Enter values directly (B on the left illustration).

[7]



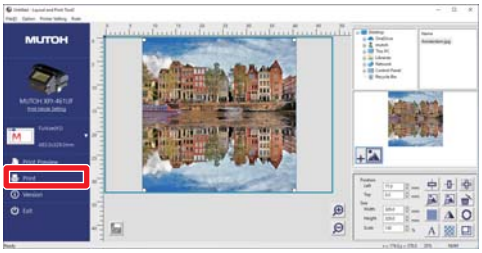
Click [Print Mode Setting].

[8]



- Select [Specify print mode setting].
- After specifying all the settings, click [Apply].

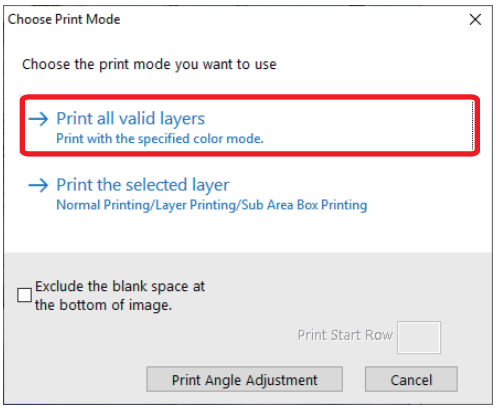
[9]



Click [Send to Layer Editor].

- The “Choose Print Mode” dialog will appear.

[10]



Select the Print Mode.

- Printing is executed.

Note

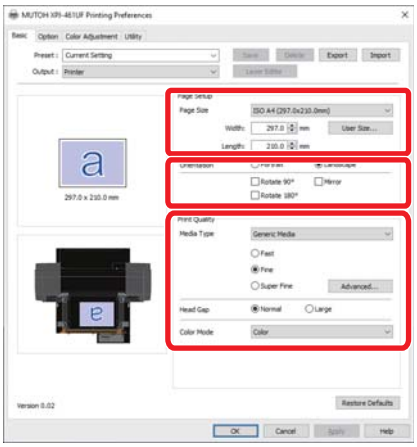
For more details of layer printing, see the Layout and Print Tool 2 Operation Manual.

Printing from the Printer driver

In this section, a method to print from the printer driver is explained.

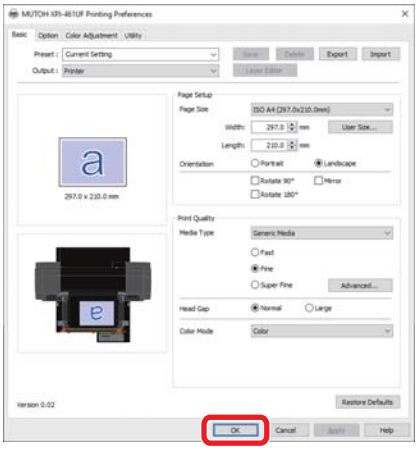
[1] Open printing data from application software to execute printing.

[2] Open the print setup screen of the XPJ-461UF printer driver from the application software.

[3] 

Conduct print setup.

- Set [Page Size], [Orientation] and [Print Quality].

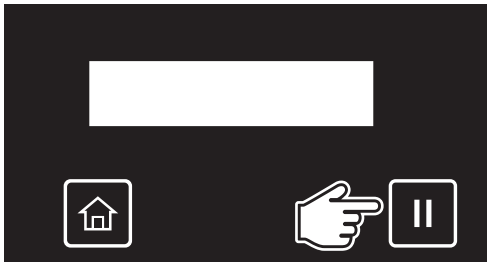
[4] 

Click [OK].

[5] Printing is executed.

Pausing/Restarting printing

[1]



Tap [Cancel] while printing.

- The printer will pause printing.

Note

- You cannot cancel the job by tapping [Cancel].
- To cancel the job, see the following section.

"Canceling printing" P. 45

[2]

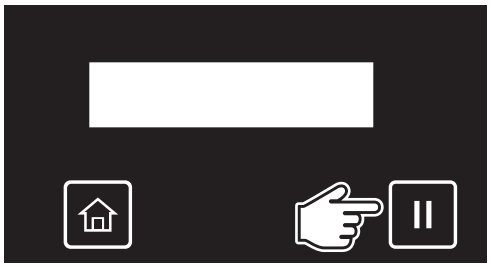
Tap [Cancel] again to resume printing.

Important!

MUTOH cannot guarantee the print quality when you resume the printing.

Canceling printing

[1]



Tap [Cancel] while printing.

- The printer will pause printing.

Note

To resume printing, tap [Cancel] again.

[2]

Tap [Enter] to cancel printing. (Once canceled, you cannot resume the job again.)

- The data sent to the printer will be deleted.

Note

You can also cancel the job from the remote panel on MSM.

Menus you can access while printing

[1]

Receiving

Printing

Converting

Tap [Home] while one of the three messages on the left appears on the touch panel.

[2]

Menu1
PF Micro Adjust

Menu2
Backup

Menu3
Job Status

Menu4
Reset Waste Ink

Use ^ or v to choose the menu, then tap >.

☞ "Menu1: PF Micro Adjustment" P. 46
☞ "Menu2: Backup" P. 47
☞ "Menu3: Job Status" P. 47
☞ "Menu4: Reset Waste Ink" P. 48

Menu1: PF Micro Adjustment

You can change the micro adjustment value to correct media feeding for the currently print job.

- See the following related sections of Panel Setting Menus

☞ "**>4: PF Adjust" P. 72

[1]

Menu1
PF Micro Adjust

Tap >.

[2]

Use ▲ or ▼ to change the value.

- Tap [Enter] to confirm the change.

Note

- The change made is applied to the current job only and is not saved in the printer.
- To save the change in the user type currently selected, go to "Menu2: Backup" P. 47.

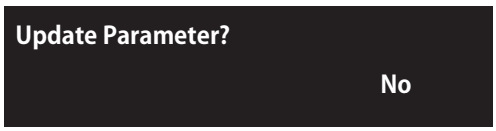
Menu2: Backup

With this menu item, you can have a change that you made via “Menu1: PF Micro Adj.” reflected in the currently selected User Types.

[1]

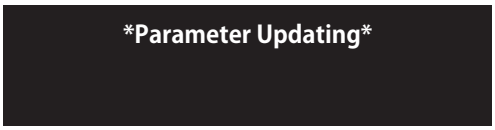
Tap ▶.

[2]



Use ▲ or ▼ to select “Yes”.

- Tap [Enter].



The change is saved in the selected user type.

Menu3: Job Status

You can check the current status of the print job being printed.

- See the following related sections of Panel Setting Menus:

☞ "Printer Status 3: Job Status" P. 103

[1]

Tap ▶.

[2]

Job Status	
ToDoLength:	0.0 m

Job Status	
Done:	0.0 m

Job Status	
Remain:	0.0 m

Job Status	
Remain Time:	0 min

Use ▲ or ▼ to choose the information you want to check.

- ToDoLength: displays the length of the current job (in media feeding direction).
- Done: displays the length of the current job that has been already printed.
- Remain: displays the remaining length to finish printing.
- Remain time: displays remaining time to finish printing.

Note

- Indicated value is approximate. The accuracy of the value is not guaranteed.
- If the print job data does not contain length information, "0" will be displayed in the Job Status menu.

Menu4: Reset Waste Ink

Use this menu to reset the waste ink counter to zero, if you empty out the waste ink tank during printing.

[1]

Menu4
Reset Waste Ink

Tap ▶.

[2]

Initial. Parameter?
No

Use ▲ or ▼ to select "Yes".

- Tap [Enter].

** Initializing **

The counter will be reset to zero.

Checking the printing area

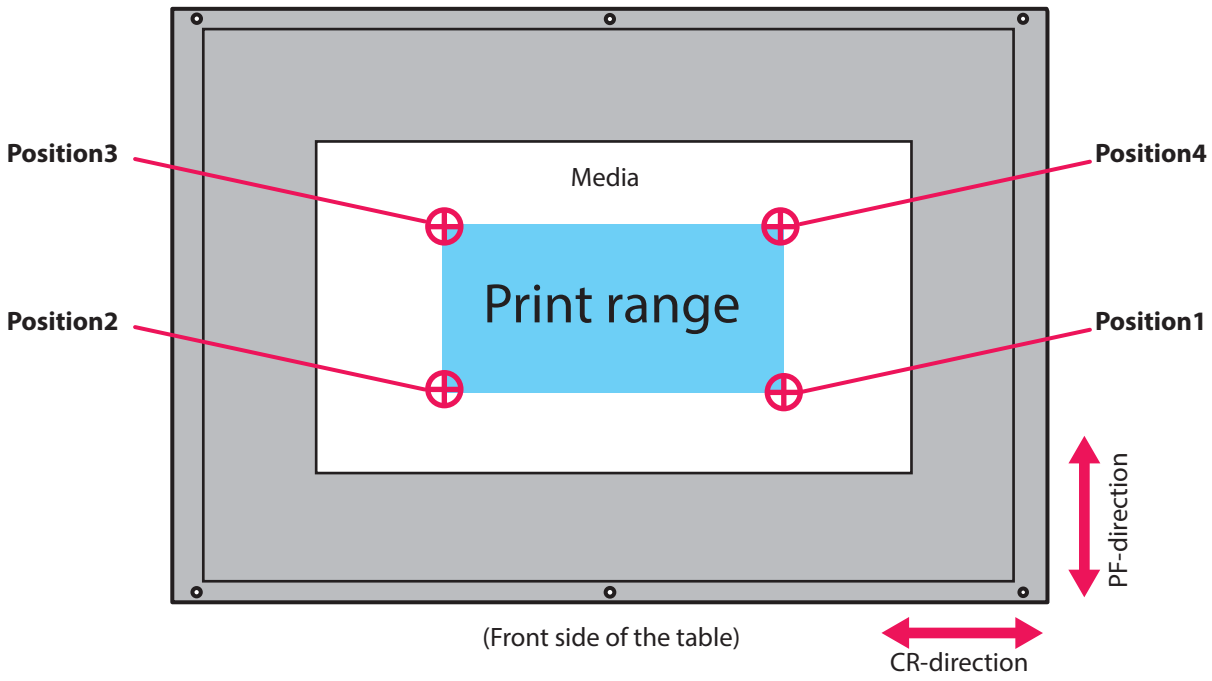
To avoid printing on an unwanted area on your media, the Show Edges function helps to check the printing area of the print date before printing. By specifying this setting before printing, LED pointer shows where the image will be printed on the media. This helps to avoid misprinting especially when printing on an object that you do not have more than one pieces.

With this function, you can check the following:

- Whether an image can be printed on the intended area on the media.
- Whether the print data can be fitted on the media.

Operation

- Locate the four corners of the printing area by the LED pointer.
- The LED pointer flashes (every second) on the point.
- The LED pointer lights up when moving from point to point.
- If the print data is too big for the media, the LED pointer flashes fast (twice a second) on the point.
- Move the LED pointer from the “position1” to “position4” in order in the following illustration.

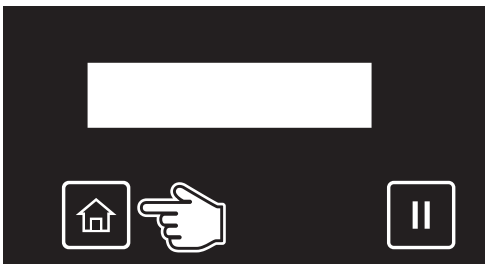


Note

When the print data does not have the length information (PF length), the LED pointer does not move from Position3 and 4.

1. Setting “Show Edges” function

[1]



Tap [Home].

[2]

Tap .

[3]

Tap .

[4]

Use or to select the user type.

- Tap [Enter].

Important!

If you have changed the user type to another type, all settings that can be changed by user type settings change to the settings of the selected user type.

- **When the “media setting” for the user type settings have been changed, the settings for the “media size” and “origin position” are changed to the settings of the selected user type. Therefore, be careful with the print start position. Images might be printed at the position that was not intended or outside the media.**

- **You can change the settings for the “media setting” from the Panel Setting menu.**

☞ **"**>6: MediaSetting" P. 76**

[5]

- Use to choose the menu shown left.
- Tap .

[6]

Use or key to select the setting.

- Off: LED pointer does not show the printing area. This is the default setting.
- Step: LED pointer shows where the image will be printed on the media and the printer will ask you at each point of corner if the position is OK.
- Auto: LED pointer shows where the image will be printed on the media without checking with the user.

- Tap [Enter].

2. How to check the printing area

This section explains about when the checking method is set to “Step”.

Note

When it is set to “Auto”, the following steps 2 to 5 are skipped. After step 1, the LED pointer moves from the “position1” to “position4” in order

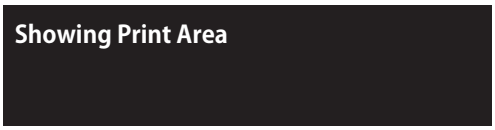
[1]

- When the media is loaded and the print data is sent to the printer, the left message is displayed.
- Tap [Enter].

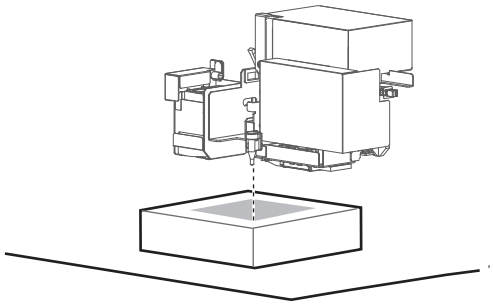
Note

If you tap , the printer starts printing without showing printing area.

- The LED pointer moves to the bottom right corner of the print range (position1) while the LED is turned off.



- After moving, the LED pointer flashes every second, for a total of 3 times.

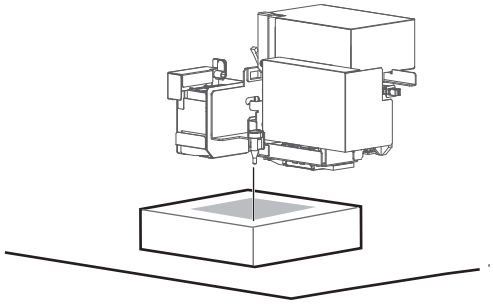


[2]

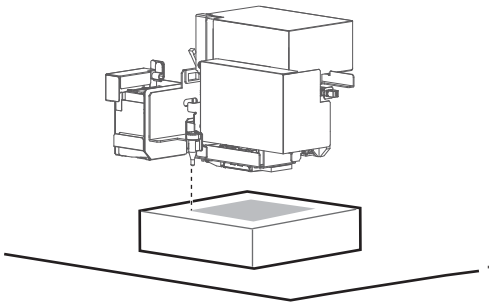
Check that the LED pointer’s position is not misaligned with the media position, and then tap [Enter].

Note

- The LED pointer remains on until [Enter] is tapped.
- To cancel the job, use or to choose "No", then tap [Enter].



Showing Print Area



- The LED pointer moves to the bottom left corner of the print range (position2).
- The LED pointer remains on while moving.
- After moving, the LED pointer flashes every second, for a total of 3 times.

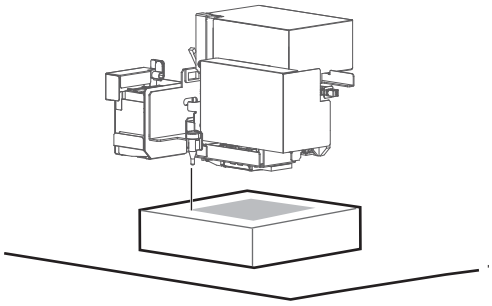
Note

When the print data's width (CR direction length) is too big for the media, the LED pointer flashes twice a second, for a total of 6 times after moving.

[3]

Position 2 OK?

Yes

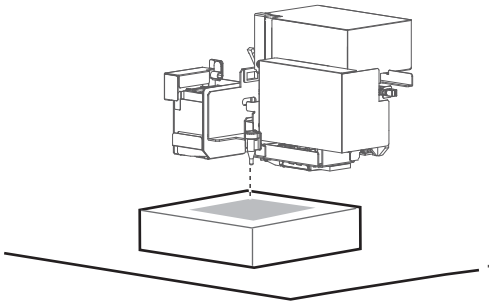


Check that the LED pointer's position is not misaligned with the media position, and then tap [Enter].

Note

- The LED pointer remains on until [Enter] is tapped.
- To cancel the job, use ▲ or ▼ to choose "No", then tap [Enter].

Showing Print Area



- The LED pointer moves to the top left corner of the print range (position3).
- The LED pointer remains on while moving.
- After moving, the LED pointer flashes every second, for a total of 3 times.

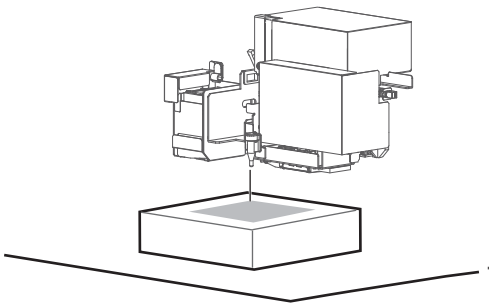
Note

When the print data's width (CR direction length) is too big for the media, the LED pointer flashes twice a second, for a total of 6 times after moving.

[4]

Position 3 OK?

Yes

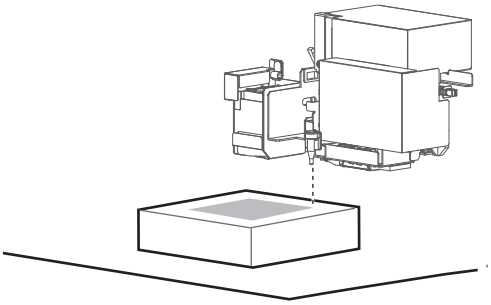


Check that the LED pointer's position is not misaligned with the media position, and then tap [Enter].

Note

- The LED pointer remains on until [Enter] is tapped.
- When the print data's length (PF length) is too big for the media, the LED pointer flashes twice a second, for a total of 6 times after moving.
- To cancel the job, use ▲ or ▼ to choose "No", then tap [Enter].

Showing Print Area



- The LED pointer moves to the top right corner of the print range (position4).
- The LED pointer remains on while moving.
- After moving, the LED pointer flashes every second, for a total of 3 times.

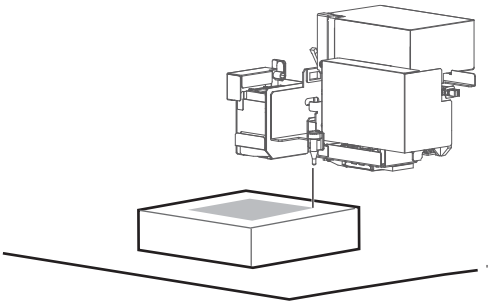
Note

When the print data's length (PF length) is too big for the media, the LED pointer flashes twice a second, for a total of 6 times after moving.

[5]

Position 4 OK?

Yes

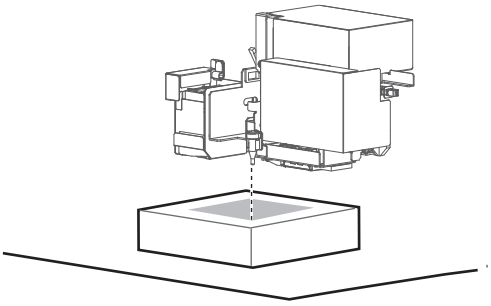


Check that the LED pointer's position is not misaligned with the media position, and then tap [Enter].

Note

- The LED pointer remains on until [Enter] is tapped.
- To cancel the job, use ▲ or ▼ to choose "No", then tap [Enter].

Showing Print Area



- The LED pointer moves to the bottom right corner of the print range (position1).
- The LED pointer remains on while moving.
- After moving, the LED pointer flashes every second, for a total of 1 time.

Please Wait

- The carriage returns to the original position (capping station).
- Checking the print range is complete.

[6]

Start Printing?

No

Use ▲ or ▼ to select "Yes".

- Tap [Enter].

Note

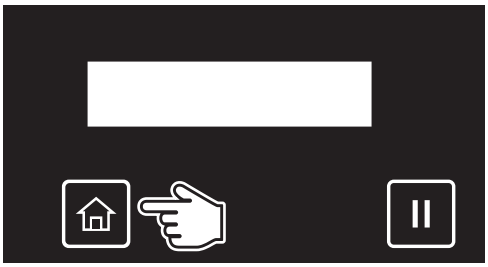
To cancel the job, use ▲ or ▼ to choose "No", then tap [Enter].

Applying additional UV light after printing

If the print does not cure completely, you can apply extra UV curing after printing.

This is useful for the following cases.

- When printing on media that soaks ink, such as a cloth and so on.
- When printing an image that uses a lot of ink.
- When the multi-layered ink on the media is thick.

[1] 

After printing, tap [Home].

[2]

Menu3
Maintenance

- Use ▼ to choose the menu shown left.
- Tap ▶.

[3]

Maintenance4
UV Scan

- Use ▼ to choose the menu shown left.
- Tap ▶.

[4]

UV Scan1
Start

Tap ▶.

[5]

UV Scan
Start —> Enter

Tap [Enter].

- The printer applies UV light on the print.

Note

- The range to apply the UV light depends on the user type's [MediaSetting] – [Size] and [Origin] settings that are currently selected.
- See the following when changing the number of reciprocating motions for every 1 inch in the media feeding direction while performing UV scanning.
  ☞ "UV Scan2: Number of Scan" P. 98
- To apply additional UV-LED light automatically every time after printing, see the following.
  ☞ "UV Scan3: Post Cure" P. 98

For details on the related sections of the Panel Setting menu, see the following.

☞ "Maintenance 4: UV Scan" P. 97

Layer printing

This printer has the capability for layer printing.

- To perform layer printing using Layout and Print Tool 2 or MUTOH Layer Editor, see Layout and Print Tool 2 Operation Manual or MUTOH Layer Editor Operation Manual.

  ☞ **"Displaying Help" P. 17**

- See the following related sections of Panel Setting Menus (Chapter 2 below):

  ☞ **"**>3: Adjust Layer Print" P. 68**

  ☞ **"Advanced Settings 1: Multi Strike" P. 80**

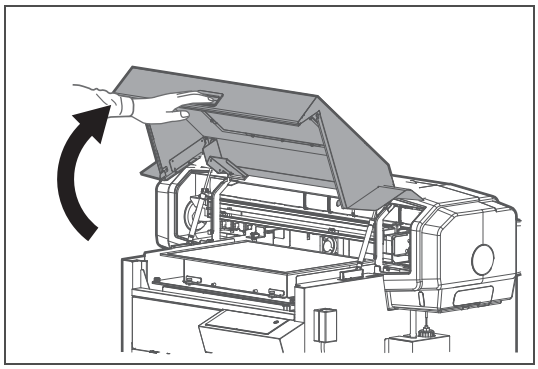
  ☞ **"Advanced Settings 9: Multi Layer" P. 85**

Removing the standard table from the printer

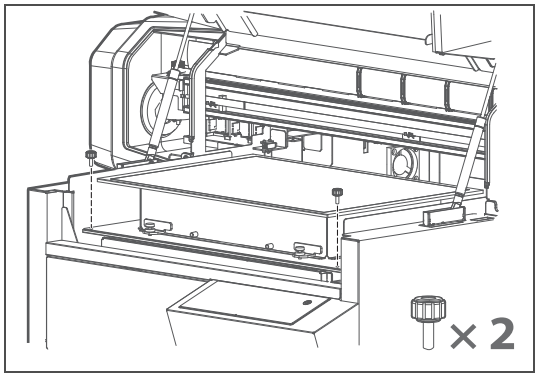
To remove the standard table from the printer, follow these steps.

[1] Power off the printer.

[2] Unplug the printer from wall outlet.

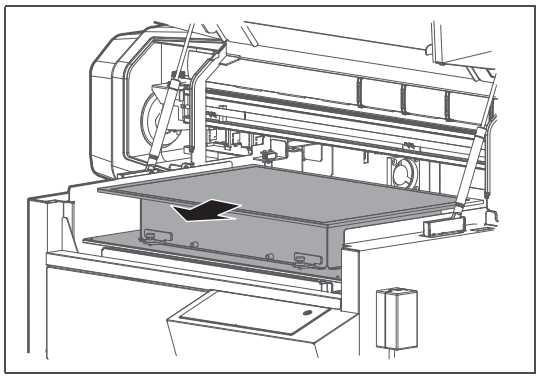
[3] 

Hold the handle on the front cover to gently open it.

[4] 

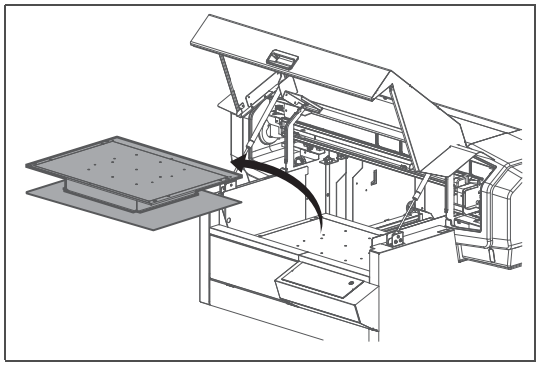
Remove two screws securing the table.

[5]



Slide the table to the front to remove the bottom plate of the table from the spring clips at the back of the base table.

[6]



Remove the table from the printer.

Important!

Once removed, follow these instructions to store the table. Failure to do so will cause deformation or misalignment on the table, leading to poor print quality or damage to the printer.

- **Keep the table on the flat surface.**
- **Do not place any materials on the table.**
- **Do not lean or tumble the table.**

Chapter 2 Advanced Operations

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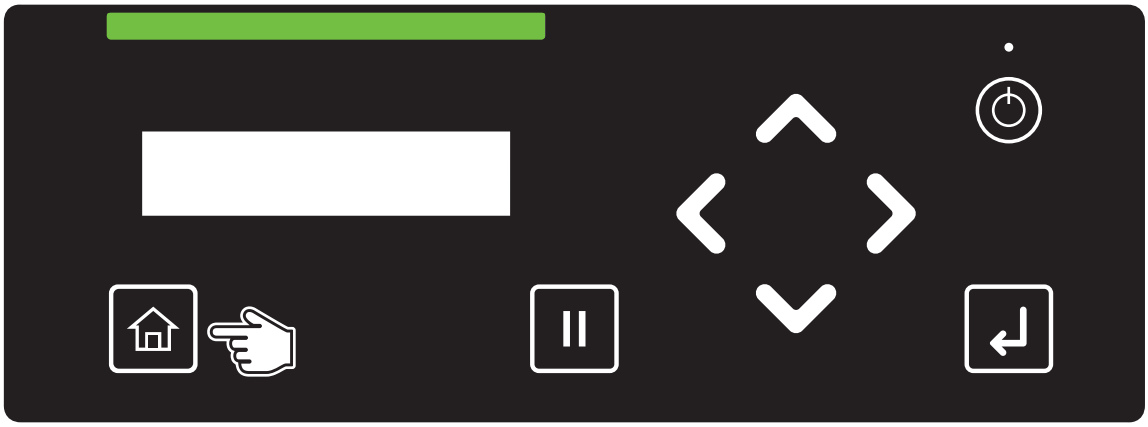
Introduction

Using the panel setting menus, configure various kinds of settings for the printer.

Operating the keys to use the menus

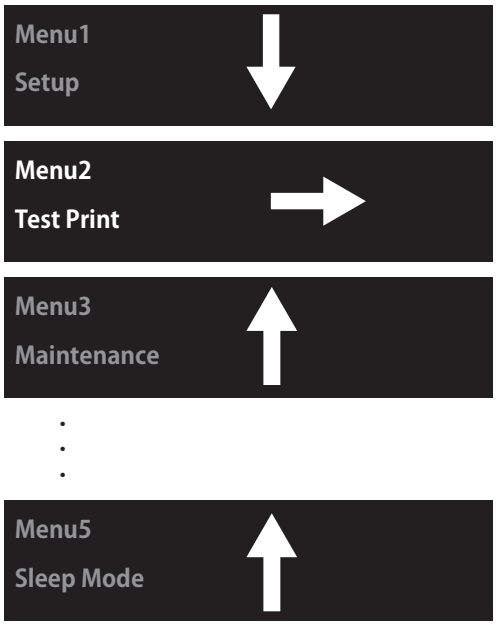
[1] To access to the setup menu, tap [Home].



Note

You cannot access to the setup menu while printing or receiving data (the power button is flashing).

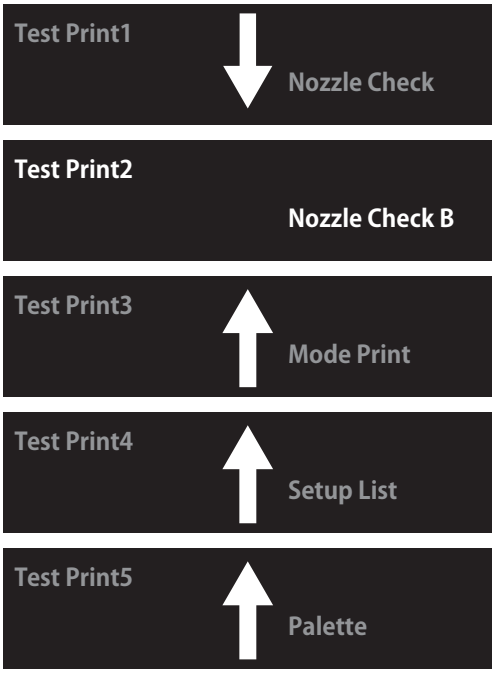
[2]



Use ^ or v to go to the previous item or next item.

Use > to go to the sub menu.

[3]



Use ^ or v to choose the option from the sub menu or enter the value.

To confirm the value or execute the selected function, tap [Enter].

Use < to return to the upper level menu.
(In the example on the left, the display will return to “Menu2: Test Print”.)

Panel setup menu

Menu 1: Setup

Menu 1
Setup

Configure printer settings.

Submenus

Setup1
User Type

☞ Setup 1: User Type

Setup2
Advanced Settings

☞ Setup 2: Advanced

Setup3
Initial Settings

☞ Setup 3: Initial Settings

Setup4
Initialization

☞ Setup 4: Initialization

Menu 2: Test Print

Menu2
Test Print

Performs nozzle check of the print head and prints a printer setup list.

Submenus

Test Print1
Nozzle Check

☞ Test Print 1: Nozzle Check

Test Print2
Nozzle Check B

☞ Test Print 2: Nozzle Check B

Test Print3
Mode Print

☞ Test Print 3: Mode Print

Test Print4
Setup List

☞ Test Print 4: Setup List

Test Ptint5
Palette

☞ Test Print 5: Palette

Note

"Nozzle Check B" will only appear in the menu if 6-color is set.

Menu 3: Maintenance

Menu3
Maintenance

Performs maintenance for print head and ink.

Submenus

Maintenance1 **Cleaning**	☞ **Maitenance 1: Cleaning**
Maintenance2 **Reset Waste Ink**	☞ **Maintenance 2: Reset Waste Ink**
Maintenance3 **CR Maintenance**	☞ **Maintenance 3: CR Maintenance**
Maintenance4 **UV Scan**	☞ **Maintenance 4: UV Scan**
Maintenance5 **Ink Discharge**	☞ **Maintenance 5: Ink Discharge**
Maintenance6 **Plug Life**	☞ **Maintenance 6: Plug Life**
Maintenance7 **Daily Maintenance**	☞ **Maintenance 7: Daily Maintenance**

Menu 4: Printer Status

Menu4
Printer Status

Provides printer status information.

Submenus

Printer Status1
Ink

☞ **Printer Status 1: Ink**

Printer Status2
Life Times

☞ **Printer Status 2: Lifetimes**

Printer Status3
Job Status

☞ **Printer Status 3: Job Status**

Printer Status4
Version

☞ **Printer Status 4: Version**

Printer Status5
Serial No.

☞ **Printer Status 5: Serial No.**

Printer Status6
Total Print Area

☞ **Printer Status 6: Total Print Area**

Menu 5: Sleep Mode

Menu5
Sleep Mode

Configures or activates sleep modes.

Submenus

Sleep Mode1
Start

☞ **Sleep Mode 1: Start**

Sleep Mode2
Cleaning Timer

☞ **Sleep Mode 2: Cleaning Timer**

Setup 1: User Type

The User Type is one of user-settings to set media types and printing conditions for printing.

Setup1 User Type	You can have up to 10 groups of User Type, labeled “Type1” to “Type10”. When you select a User Type group (“Type”) and tap [Enter], that definition group will be set for the printer. Also, a submenu will be displayed.

Setting values

User Type: Type1	Select a “Type” number, from “Type1” to “Type10”.

Important!

When you have changed to another User Type, all the settings that are alterable via the User Type will be changed to the values in the currently selected User Type.

- **When the “media setting” for the user type settings have been changed, the settings for the “media size” and “origin position” are changed to the settings of the selected user type. That means the print start position will also change. Make sure that the printer will start printing from the intended position. If not, the printer could print onto the wrong part(s) of the media or print outside it.**

“Detailed-Set: On” (on/off for the set check display when a media is set on the table) only appears when the User Type is selected for the first time. Use ∧ or ∨ to select “On” or “Off”, and tap [Enter].

- **If you select “Detailed-Set: On”, you will have to input the media size and origin position after tapping ∧ each time you set a media on the table.**
- **If you select “Detailed-Set: Off”, “Ready to Print” will be displayed after tapping ∧ each time you set a media on the table. The currently selected User Type values will be used for the media width and length and origin position.**
- **Even when "Detailed-Set" is set to Off, you can enter media height, obstacle detect, media size and origin position from the “**: Media Setting1 Set Media” by tapping [Cancel] while the message "Print Ready" or “Set media then tap [∧] key.” appears on the panel.**

User Type:
Type1

Configures the printer settings for selected User Type.

Submenus

Type ** : 1
Print Mode

☞ **>1: Print Mode

Type ** : 2
Adjust Print

☞ **>2: Adjust Print

Type ** : 3
Adj. Layer Prn.

☞ **>3: Adjust Layer Print

Type ** : 4
PF Adjust

☞ **>4: PF Adjust

Type ** : 5
Vacuum Fan

☞ **>5: Vacuum Fan

- If you are not using the optional vacuum table on the printer, this menu does not appear on the panel. The rest of the menus will be displayed with a different menu number.

Type ** : 6
Media Setting

☞ **>6: MediaSetting

Type ** : 7
Low Speed

☞ ** > 7: Low Speed

Type ** : 8
Show Edges

☞ **>8: Show Edges

Type ** : 9
Obstacle Detect

☞ **>9: Obst. Detect

Type ** : 10
Copy User Type

☞ **>10: User Copy

Type ** : 11
Initialization

☞ **>11: Initialization

Type**:1
Print Mode

Selects the print mode.

- After setting the print mode, go on to setting of effect.
- The number of passes in the print mode varies between 4-color and 6-color ink configuration. See **Details of print mode** for more details.

Setting values

**:Mode: Fast 720×1080 12 pass Uni	High-speed printing
**:Mode: Fine 720×1440 16 pass Uni	This is the default setting.
**:Mode: Super Fine 1440×1440 32 pass Uni	High-quality printing

Details of print mode

Print Mode	Color set	Resolution	Pass	Direction	Initial values for effect
Fast	6 Colors	**720 × 1080**	**12pass**	**Uni** (unidirectional)	**i-Weave UV**
	4 Colors	**720 × 1080**	**6pass**	**Uni** (unidirectional)	**i-Weave UV**
Fine	6 Colors	**720 × 1440**	**16pass**	**Uni** (unidirectional)	**i-Weave UV**
	4 Colors	**720 × 1440**	**8pass**	**Uni** (unidirectional)	**i-Weave UV**
Super Fine	6 Colors	**1440 × 1440**	**32pass**	**Uni** (unidirectional)	**i-Weave UV**
	4 Colors	**1440 × 1440**	**16pass**	**Uni** (unidirectional)	**i-Weave UV**

Effect

**:Mode: Fast
720×1080 12 pass Uni

Selects the effect.
Set up this menu when you want to improve print quality by adjusting the set print mode.

Setting values

**: Effect: None	The Effect function is not applied.
**: Effect: i-Weave UV	The printing joint will shade off. This is the default setting.

Type ** : 2
Adjust Print

Adjusts the printer to optimize the print quality for the media.

- Required media size: width 210 mm × length 100 mm.

☞ "Confirm pattern" P. 88
☞ "Rough adjustment pattern" P. 67
☞ "Fine adjustment pattern" P. 67

Submenus

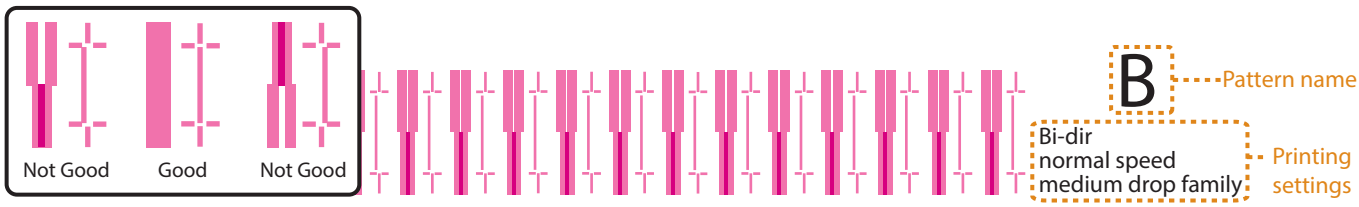
** : Adjust Print1 Confirm Pattern	Print a confirm pattern.
** : Adjust Print2 Rough Pattern ALL	Print rough adjustment patterns A to C and enter adjustment values.
** : Adjust Print3 Rough Pattern A	Print rough adjustment pattern A only and enter an adjustment value.
** : Adjust Print4 Rough Pattern B	Print rough adjustment pattern B only and enter an adjustment value.
** : Adjust Print5 Rough Pattern C	Print rough adjustment pattern C only and enter an adjustment value.
** : Adjust Print6 Fine Pattern ALL	Print fine adjustment patterns A to C and enter adjustment values.
** : Adjust Print7 Fine Pattern A	Print fine adjustment pattern A only and enter an adjustment value.
** : Adjust Print8 Fine Pattern B	Print fine adjustment pattern B only and enter an adjustment value.
** : Adjust Print9 Fine Pattern C	Print fine adjustment pattern C only and enter an adjustment value.

Steps

1. Print a confirm pattern and check it for printing errors.
2. Print rough adjustment patterns and enter correction values.
   - Select “ALL”, or one of “A” to “C”.
3. Print fine adjustment patterns and enter correction values.
   - Select “ALL”, or one of “A” to “C”.

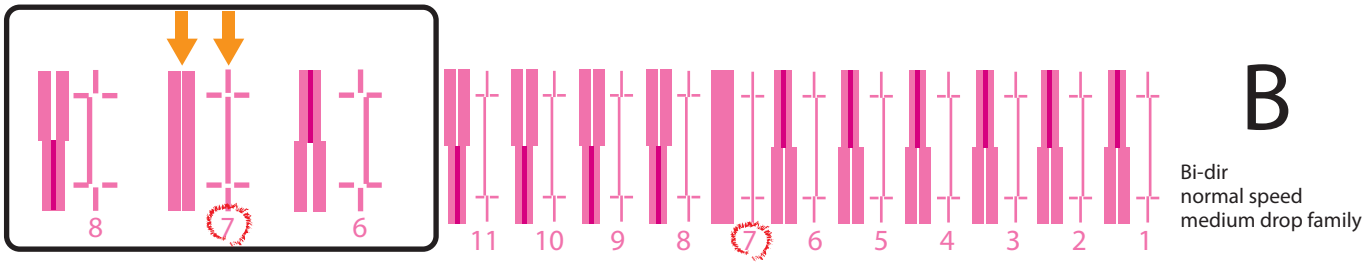
Confirm pattern

- Tap [Enter] to carry out printing.
- Check the pattern print. If there are misalignments, proceed to rough adjustment pattern printing.
- In the picture below, there are misalignments.



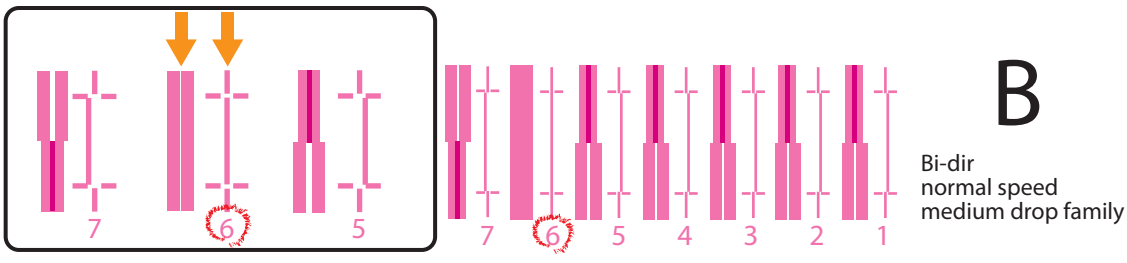
Rough adjustment pattern

- Tap [Enter] to carry out printing.
- Look for and mark a number printed under a pattern that has least misalignment.
- “Pattern B: 6” or similar will appear in the display. Use ^ or v to enter in the display the number that you marked, and tap [Enter].
- In the case of the picture below, enter “7”, so that the display reads “Pattern B: 7”.



Fine adjustment pattern

- Tap [Enter] to carry out printing.
- Look for and mark a number printed under a pattern that has least misalignment.
- “Pattern B: 4” or similar will appear in the display. Use ^ or v to enter in the display the number that you marked, and tap [Enter].
- In the case of the picture below, enter “6”, so that the display reads “Pattern B: 6”.



**>3: Adjust Layer Print

Type ** : 3
Adj. Layer Prn.

Use this option when you want to correct layer shifting.

- Required media size: width 210 mm x length 100 mm.
- "Adj. Layer Prn." menu only appears for printer with 6-color configuration.
- The menus "Adj. Layer Prn.1" through "Adj. Layer Prn.5" are used for white layer alignment to correct white layer shifting in single-layer or multi-layer printing.
  ☞ "Procedure for white layer alignment" P. 69
- If layer shifting still occurs in multi-layer printing after performing white layer alignment, perform layer alignment using the menus "Adj. Layer Prn.6" through "Adj. Layer Prn.12". This will correct misalignment between layers in multi-layer printing.
  ☞ "Procedure for layer alignment" P. 70

Submenus

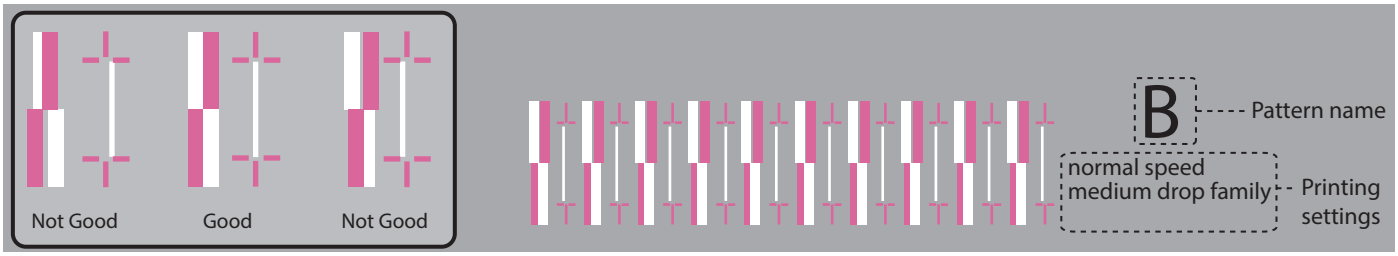
** : Adj. Layer Prn. 1 Wh Confirm Pattern	Print a white confirm pattern.
** : Adj. Layer Prn. 2 White Pattern ALL	Print white adjustment patterns A to C and enter adjustment values.
** : Adj. Layer Prn. 3 White Pattern A	Print white adjustment pattern A only and enter an adjustment value.
** : Adj. Layer Prn. 4 White Pattern B	Print white adjustment pattern B only and enter an adjustment value.
** : Adj. Layer Prn. 5 White Pattern C	Print white adjustment pattern C only and enter an adjustment value.
** : Adj. Layer Prn. 6 Layer Confirm Ptn.	Print a layer confirm pattern.
** : Adj. Layer Prn. 7 Layer Rough Ptn. ALL	Print rough layer adjustment patterns B to C and enter adjustment values.
** : Adj. Layer Prn. 8 Layer Rough Ptn. B	Print rough layer adjustment pattern B only and enter an adjustment value.
** : Adj. Layer Prn. 9 Layer Rough Ptn. C	Print rough layer adjustment pattern C only and enter an adjustment value.
** : Adj. Layer Prn. 10 Layer Fine Ptn. ALL	Print fine layer adjustment patterns B to C and enter adjustment values.
** : Adj. Layer Prn. 11 Layer Fine Ptn. B	Print fine layer adjustment pattern B only and enter an adjustment value.
** : Adj. Layer Prn. 12 Layer Fine Ptn. C	Print fine layer adjustment pattern C only and enter an adjustment value.

Procedure for white layer alignment

1. Print a white confirm pattern and check it for printing errors.
2. Print white adjustment patterns and enter correction values.
   - Select “ALL”, or one of “A” to “C”.

White confirm pattern

- Tap [Enter] to carry out printing.
- Check the pattern print. If there are misalignments, proceed to white adjustment pattern printing.
- In the picture below, there are misalignments.

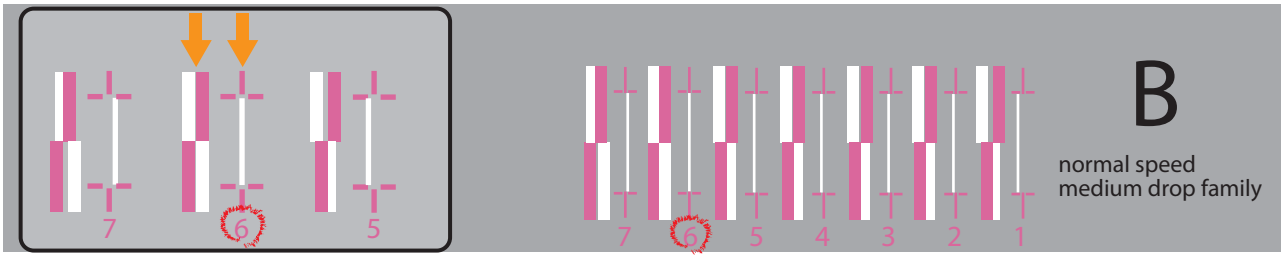


Note

The figure above is an example of the white adjustment B pattern. In this example, non-colored background area is shown in gray.

White adjustment pattern

- Tap [Enter] to carry out printing.
- Look for and mark a number printed under a pattern that has least misalignment.
- “Pattern B: 4” or similar will appear in the display. Use ^ or v to enter in the display the number that you marked, and tap [Enter].
- In the case of the picture below, enter “6”, so that the display reads “Pattern B: 6”.

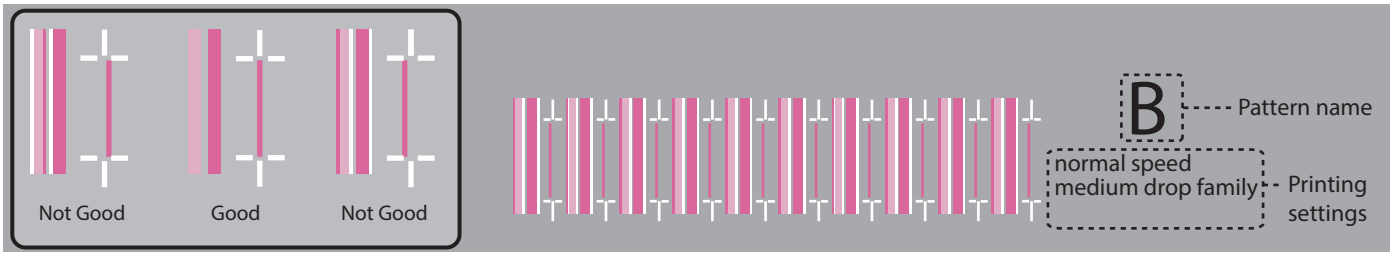


Procedure for layer alignment

1. Print a layer confirm pattern and check it for printing errors.
2. Print rough layer adjustment patterns and enter correction values.
   - Select “ALL”, or one of “B” to “C”.
3. Print fine adjustment patterns and enter correction values.
   - Select “ALL”, or one of “B” to “C”.

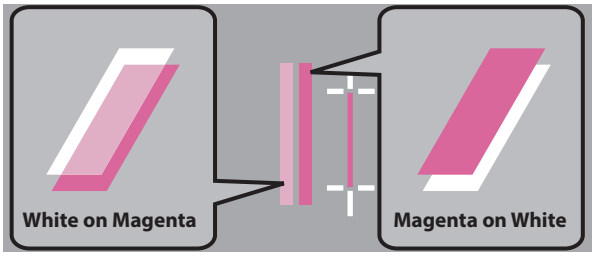
Layer confirm pattern

- Tap [Enter] to carry out printing.
- Check the pattern print. If there are misalignments, proceed to rough layer adjustment pattern printing.
- In the picture below, there are misalignments.



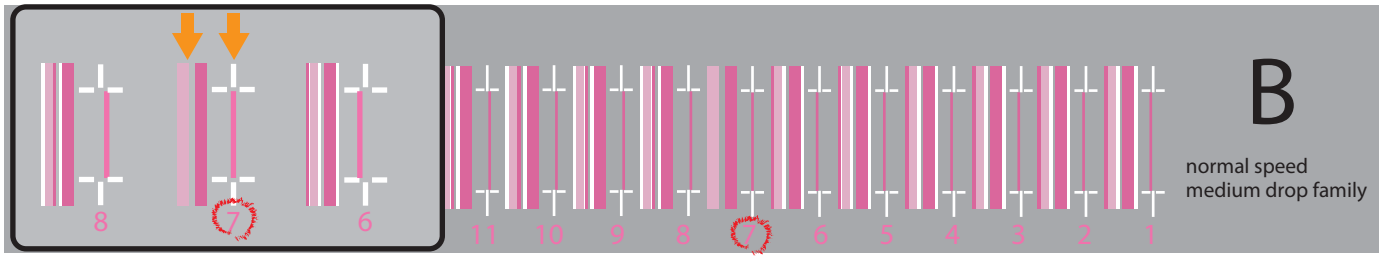
Note

- **The figure above is an example of the layer adjustment B pattern. In this example, non-colored background area is shown in gray.**
- **Two types of layer patterns are printed; "White on Magenta" prints a white layer over a magenta layer and "Magenta on White" prints a magenta layer over a white layer.**



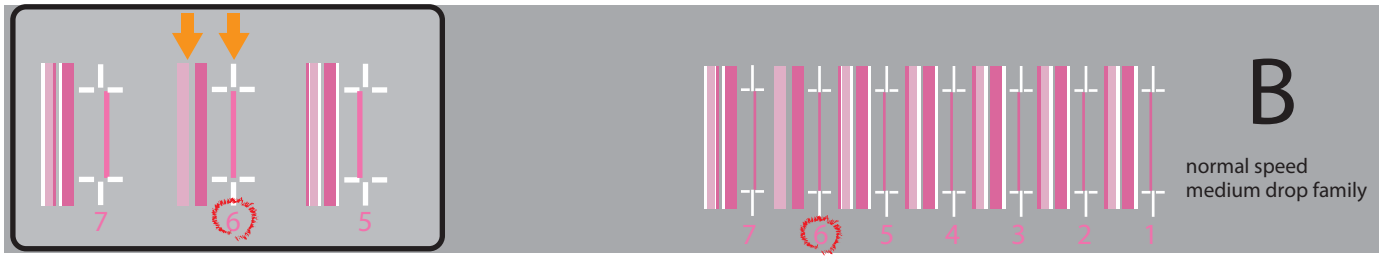
Rough layer adjustment pattern

- Tap [Enter] to carry out printing.
- Look for and mark a number printed under a pattern that has least misalignment.
- “Pattern B: 6” or similar will appear in the display. Use ^ or v to enter in the display the number that you marked, and tap [Enter].
- In the case of the picture below, enter “7”, so that the display reads “Pattern B: 7”.



Fine layer adjustment pattern

- Tap [Enter] to carry out printing.
- Look for and mark a number printed under a pattern that has least misalignment.
- “Pattern B: 4” or similar will appear in the display. Use ^ or v to enter in the display the number that you marked, and tap [Enter].
- In the case of the picture below, enter “6”, so that the display reads “Pattern B: 6”.



Type ** : 4 PF Adjust	Performs media feed adjustment. • Required media size: width 210 mm × length 110 mm. • A ruler is required for this adjustment. Please prepare a commercially available ruler. When the following defects are found in your prints, they may improve by conducting a paper feed correction. • Images are overlapping. • There are white lines in images.

Submenus

** : PF Adjust1 Initial Print	☞ "PF 1. Initial Print" P. 73
** : PF Adjust2 Initial Change	☞ "PF2. Initial Change" P. 73
** : PF Adjust3 Confirm Print	☞ "PF3. Confirm Print" P. 74
** : PF Adjust4 Micro Print	☞ "PF4. Micro Print" P. 74
** : PF Adjust5 Micro Change	☞ "PF5. Micro Change" P. 75

Steps

1. Determine the feed length for the “PF1: Initial Print”, print it, measure the distance between the “+” marks with a ruler.
2. Enter the distance measured as the “Initial Change”.
3. Determine the feed length for the “PF3: Confirm Print”, print it, and measure the distance between the “+” marks with a ruler.

   •Check that there is no deviation from the feed length.
4. Print a “PF4: Micro Print”, and find the pattern with the least white streaks and image overlaps.

   •The numeral below that pattern is the micro adjustment value.
5. Enter the micro adjustment value according to the test pattern print in Step 4.

When you know the adjustment value (when changing the media or for similar operations)

1. Enter the adjustment value for “PF Adjust 5 Micro Change”.

PF 1. Initial Print

**** : PF Adjust1**
Initial Print

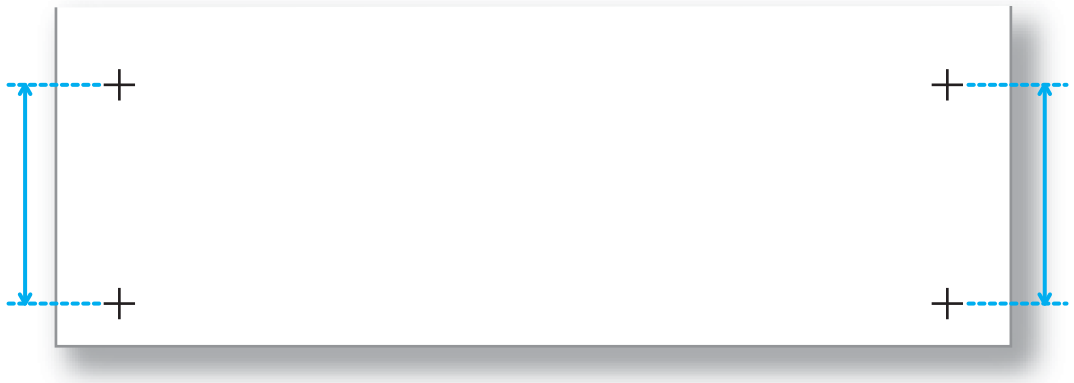
Performs initial adjust print. Enter the "FeedLength", and tap [Enter].
Print a "+" mark at the beginning, feed the media according to the setting value, and print another "+" mark.

Setting values

**** : Initial Print**
FeedLength : 250 mm

100 mm to <250 mm> to 300 mm
<> indicates the default setting.

- With a ruler, measure the length between "+" in the pattern.
- In the example below, the measured place is shown in blue dotted lines and arrows (the blue parts are not actually printed).



Important!

- **The maximum setting value for the feed length will vary depending on the settings for "MediaSetting", "Size" and "Length" in the User Type. (The same applies to "Confirm Print".)**
  - **Some media lengths cannot be used.**
    For example, if a media has a length of 100 mm or below, "Media size error: Length" will appear on the panel and printing will not be carried out.

PF2. Initial Change

**** : PF Adjust2**
Initial Change

Use ^ or v to enter the adjustment value, and tap [Enter].

Setting values

**** : Initial Change**
Init. : 250 mm / 250 mm

<Initial Print menu setting value>
± 10.0 mm
<> indicates the default setting.

PF3. Confirm Print

```
** : PF Adjust3
Confirm Print
```

Performs Confirm Print. Enter the "FeedLength", and tap [Enter].
Print a "+" mark at the beginning, feed the media according to the setting value, and print another "+" mark.

Setting values

```
** : Confirm Print
FeedLength :          250 mm
```

100 mm to <250 mm> to 300 mm
<> indicates the default setting.

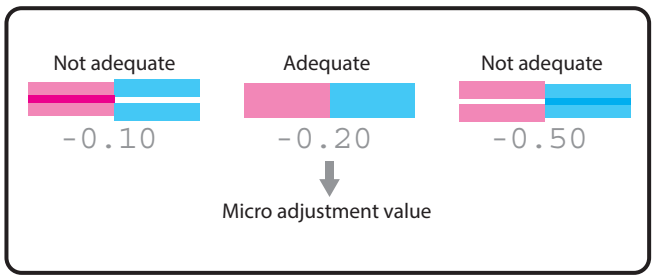
- With a ruler, measure the length between "+" in the pattern.
- If there is discrepancy between the value set for "FeedLength" and the value measured, carry the procedure out again from 1. "Initial Print". If there is no discrepancy, go to 4. "PF4. Micro Print".
- In the example below, the measured place is shown in blue dotted lines and arrows (the blue parts are not actually printed).

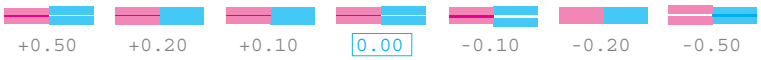
PF4. Micro Print

```
** : PF Adjust4
Micro Print
```

Performs Micro adjustment print.
Enter the appropriate micro adjustment value according to the test pattern print.

- Observe the pattern and verify the micro adjustment value. In the pattern, look for a place that has least white lines or overlapping in images. The number printed below the pattern is the micro adjustment value.
- Enter the Micro adjustment value according to the test pattern print.





Note

The micro adjustment value saved becomes the pattern's standard value.

For example, if "-0.20" is saved as the micro adjustment value and a pattern is printed again, the number below the center pattern changes from "0.00" to "-0.20", and the left edge to "+0.30" and right edge to "-0.70".

PF5. Micro Change

**: PF Adjust5
Micro Change

Use ^ or v to enter the micro adjustment value, and tap [Enter].

Setting values

**: Micro Change
(-5 - 5) 0.00%

-5.00% to <0.00%> to 5.00%
<> indicates the initial value.

**>5: Vacuum Fan

Type **: 5
Vacuum Fan

Sets up vacuum fan operation. It has the role of fixing the media to the table.

- If you are using a thin or delicate media and there is risk of it wrinkling due to the fan, set a lower value for the fan.
- If you are not using the optional vacuum table on the printer, this menu does not appear on the panel. The rest of the menus will be displayed with a different menu number.

Setting values

**: Vacuum Fan :
High

**: Vacuum Fan :
Medium-Hi

**: Vacuum Fan:
Medium

**: Vacuum Fan :
Low

**: Vacuum Fan :
Off

<High> / Medium-Hi / Medium / Low / Off
<> indicates the default setting.

Type ** : 6
Media Setting

This is for setting the conditions for placing the media on the table.

Submenus

**** : Media Setting1**
Set Media

For entering the media width and length, and setting the origin position.

- Carry these out with the media set in place on the table.

☞ "Specify the print start position" P. 36, Step 4 and Step 7.

**** : Media Setting2**
Size

For entering the media width and length only.

☞ "Specify the print start position" P. 36, Step 4 and Step 5.

**** : Media Setting3**
Origin

Enter the origin of the job.

☞ "Specify the print start position" P. 36, Step 6 and Step 7.

**** : Media Setting4**
Detailed-Set

Off / <On>
<> indicates the default setting.

- If you select “Detailed-Set: On”, you will have to input the media size and origin position after tapping ^ each time you set a media on the table. However, you can eliminate the need for such input by tapping the [Cancel]. If you do so, the values set in the User Type will be used.
- If you select “Detailed-Set: Off”, “Ready to Print” will be displayed after tapping ^ each time you set a media on the table.
  The currently selected User Type values will be used for the media size and origin position.
- Even when "Detailed-Set" is set to Off, you can enter media height, obstacle detect, media size and origin position from the “**: Media Setting1 Set Media” by tapping [Cancel] while the message "Print Ready" or “Set media then tap [^] key.” appears on the panel.

**** : Media Setting5**
Obst. Check Mode

Select the detection accuracy of the obstacle sensor when loading media into the printer.
If printing fails due to failure to detect media warp with "Normal" mode, try "High-Accuracy" mode.

Normal / <High-Accuracy>
<> indicates the default setting.

** > 7: Low Speed

Type** :7
Low Speed

Use this when you want a slower printing speed.

- It helps to enhance print quality when you print on an uneven surface media or curved object (e.g. golf ball, ballpoint pen, smart phone case).

Setting values

**: Low Speed: Off	The printing speed will not be lowered. This is the default setting.
**: Low Speed: 75%	The printing speed will be lowered to 75%.
**: Low Speed: 50%	The printing speed will be lowered to 50%.
**: Low Speed: 25%	The printing speed will be lowered to 25%.

**>8: Show Edges

Type** :8
Show Edges

To check the printing area before printing, LED pointer shows where the image will be printed on the media.

☞ "Checking the printing area" P. 49

Setting values

**: Show Edges: Off	LED pointer does not show the printing area. This is the default setting.
**: Show Edges: Step	LED pointer shows where the image will be printed on the media and the printer will ask you at each point of corner if the position is OK.
**: Show Edges: Auto	LED pointer shows where the image will be printed on the media without checking with the user.

**>9: Obst. Detect

Type** :9
Obstacle Detect

Selects the printer operation when the obstacle sensor has detected an obstacle.

Submenus

**:Obstacle Detect:
Print Cancel

The printer cancels printing and prompts the obstacle error message.
This is the default setting.

**:Obstacle Detect:
Confirm

The printer pauses the printing and allows users to choose from two options;
Print Continue or Print Cancel.

Note

- "Obstacle Detected Print Continue"
  Hold the media flat on the table without any warp, fold or curl.
  Tap [Enter] to resume the job.
- "Obstacle Detected Print Cancel"
  Tap [Enter] to cancel the job and prompts the obstacle error message.

**>10: User Copy

Type** :10
Copy User Type

This is for copying the currently selected User Type setting into another User Type.

- The items that will be copied are: "Print Mode", "Effect", the "Adjust Print", "Adjust Layer Print" and "PF Adjust" adjustment values, "Vacuum Fan", "MediaSetting", "Low Speed", "Show Edges" and "Obstacle Detect".

Setting values

**: Copy Use Type:
Type**-> 1

**: Copy Use Type:
Type**->ALL

Here you can select the User Type to copy the settings into. If you select ALL, the settings will be copied into all the User Type.

**>11: Initialization

Type** :11
Initialization

Returns all settings of the currently selected User Type to factory default.

Setup 2: Advanced

Setup2
Advanced Settings

Configures various advanced settings.

Submenus

Advanced Settings1 **Multi Strike**	☞ "Advanced Settings 1: Multi Strike" P. 80
Advanced Settings2 **Pass Wait**	☞ "Advanced Settings 2: Pass Wait" P. 81
Advanced Settings3 **Head Travel**	☞ "Advanced Settings 3: Head Travel" P. 81
Advanced Settings4 **Bottom Interlace**	☞ "Advanced Settings 4: Bottom Interlace" P. 81
Advanced Settings5 **Header Dump**	☞ "Advanced Settings 5: Header Dump" P. 82
Advanced Settings6 **Spitting**	☞ "Advanced Settings 6: Spitting" P. 83
Advanced Settings7 **Cleaning Type**	☞ "Advanced Settings 7: Cleaning Type" P. 83
Advanced Settings8 **Auto Cleaning**	☞ "Advanced Settings 8: Auto Cleaning" P. 84
Advanced Settings9 **Multi Layer**	☞ "Advanced Settings 9: Multi Layer" P. 85
Advanced Settings10 **Ink Maintenance**	☞ "Advanced Settings 10: Ink Maintenance" P. 86
Advanced Settings11 **Select Nozzle**	☞ "Advanced Settings 11: Select Nozzle" P. 87

Advanced Settings1
Multi Strike

Sets the number of times to print the same line.

- The display will shift to setting of layer printing number of strikes only when "Strike Cnt" is set to 1 in 6-color configuration.

Setting values

Multi Strike:
(1-9) 1cnt

<1 times> to 9 times
<> indicates the default setting.

Layer Multi Strike

Multi Strike:
(1-9) 1cnt

The display will shift to layer selection.

Submenus

Layer Multi Strike1
Color Layer

☞ **Layer Multi Strike1: Color Layer**

Layer Multi Strike2:
White Layer

☞ **Layer Multi Strike2: White Layer**

Layer Multi Strike3:
Varnish Layer

☞ **Layer Multi Strike3: Varnish Layer**

Layer Multi Strike1: Color Layer

Layer Multi Strike1
Color Layer

Sets the number of times to print the same line in color (CMYK) layer.

Setting values

Color Layer:
(1-9) 1cnt

<1 times> to 9 times
<> indicates the default setting.

Layer Multi Strike2: White Layer

Layer Multi Strike2:
White Layer

Sets the number of times to print the same line in white layer.

Setting values

White Layer:
(1-9) 1cnt

<1 times> to 9 times
<> indicates the default setting.

Layer Multi Strike3: Varnish Layer

Layer Multi Strike3:
Varnish Layer

Sets the number of times to print the same line in varnish layer (clear topcoat).

Setting values

Varnish Layer:
(1-9) 1cnt

<1 times> to 9 times
<> indicates the default setting.

Advanced Settings 2: Pass Wait

Advanced Settings2
Pass Wait

Sets the waiting time between passes in multi-strike setting and normal printing.

Setting values

Pass Wait:
(0.0-5.0) 5.0sec

<0.0 sec.> to 5.0 sec.
<> indicates the default setting.

Advanced Settings 3: Head Travel

Advanced Settings3
Head Travel

Sets up the range that print head moves while printing.

Setting values

Head Travel:
Data

Print head moves the range of the print data width.

Head Travel:
Machine

- The print head will travel the maximum distance possible with the printer.

Head Travel:
Media

Print head shifts within the media width. This is the default setting.

Advanced Settings 4: Bottom Interlace

Advanced Settings4
Bottom Interlace

Sets the BottomInterlace function.

Setting values

Bottom Interlace:
On

Auto / <On>
<> indicates the default setting.

Advanced Settings 5: Header Dump

Advanced Settings5
Header Dump

Sets whether to print the following information when printing.
(Required media size: width 250 mm × length 50 mm.)

- Data header
- Data dot number (printed only when Header Dump setting is ON)
- Printer serial number
- Firmware version

Setting values

Header Dump: **Off**	Dump data is not printed. This is the default setting.
Header Dump: **On**	Dump data is printed after the original image is printed.
Header Dump: **Dump**	Prints only header dump. “Data dot number” is not printed.

Note

- The data will be useful when contacting technical support.
- Performing printing if the printer is connected to PC, the print settings of RIP soft you are using are printed on data header.

Advanced Settings 6: Spitting

Advanced Settings6 Spitting

Enables or disables the spitting function while printing.

- The display will shift to setting of the pass count only if "On" is set for "Spitting".

Setting values

Spitting: On

Off / <On>
<> indicates the default setting.

Note

Spitting is a maintenance operation for preventing clogging of the print head's nozzles. It consumes ink.

Pass Count

Spitting: On

Sets the frequency that the printer spits ink from the print head.

- The head will carry out spitting operation every time it completes the number of passes that you set here.

Setting values

Pass Count: (1-999) 1cnt

<1 time> to 999 times
<> indicates the default setting.

Important!

If the number of spitting returns is set high, there is a higher chance of nozzle clogging when printing for a long time. In such a case, print quality cannot be guaranteed.

Advanced Settings 7: Cleaning Type

Advanced Settings7 Cleaning Type

Configure the settings for the auto cleaning (standby mode, during printing, before print) and cleaning while in sleep mode.

Setting values

Cleaning Type: Short	Consumes less ink than Normal cleaning.
Cleaning Type: Normal	Conduct nozzle check before and after printing, and use when nozzle missing is found.
Cleaning Type: Long	Consumes more ink than Normal cleaning. When nozzle missing still occurs after Normal cleaning, conduct Long cleaning.

Advanced Settings8
Auto Cleaning

Set the auto cleaning to be performed while in standby mode, during printing, before print, and by total print time.

Submenus

Auto Cleaning1
Standby Mode

☞ Standby mode

Auto Cleaning2
While Printing

☞ While Printing

Auto Cleaning3
Before Print

☞ Before Print

Auto Cleaning4
Accum. Print Time

☞ Accum. Print Time

Standby mode

Auto Cleaning1
Standby Mode

Set the timer for auto cleaning to be performed while in standby mode.

Setting values

Cleaning Interval:
(10-1440) 1440min

<Off> / 10 min. to 1,440 min.
<> indicates the default setting.

While Printing

Auto Cleaning2
While Printing

Set the timer for auto cleaning to be performed while printing.

Setting values

Cleaning Interval:
(5-180) 180min

<Off> / 5 min. to 180 min.
<> indicates the default setting.

Before Print

Auto Cleaning3
Before Print

Enables or disables auto cleaning before printing.

Setting values

Before Print:
Off

<Off> / On
<> indicates the default setting.

Accum. Print Time

Auto Cleaning4 Accum. Print Time	Set the timer for auto cleaning to be performed by total print time. The auto cleaning is performed before printing by timer.

Setting values

Accum. Print Time: (1-4) 4h	<Off> / 1h / 2h /3h / 4h <> indicates the default setting.

Note

The auto cleaning mode for "Accum. Print Time" is fixed to "Long" and is unable to be changed.

Advanced Settings 9: Multi Layer

Advanced Settings9 Multi Layer	Enables or disables to print more than one image data on the same media layer by layer.

Setting values

Multi Layer: Off	<Off> / On <> indicates the default setting.

Note

- If you select “Off”, the printer will ask you to remove media after printing one data and load a new media to print next data.
- If you select “On”, just sending the next data to the printer, you can print more than one data on the same area of the media.
  - For "Adjust Print", "Adj. Layer Prn.", "PF Adjust" and "Test Print", you have to load a media each time when performing a test / pattern printing.

Advanced Settings 10: Ink Maintenance

Advanced Settings10
Ink Maintenance

To ensure its performance, the printer runs automatic ink maintenance which spits out some ink when it is used after a certain period of time from the last use.

Setting values

Ink Maintenance: **Normal**	Ink maintenance operation will be carried out at a normal frequency. This is the default setting.
Ink Maintenance: **Light**	Ink maintenance operation will be carried out less frequently than Normal mode.
Ink Maintenance: **Full**	More powerful ink maintenance operation than Normal mode will be carried out.

Note

Ink (especially white ink) has tendency to settle or coagulate inside the print head or the ink tubes. To prevent this, the printer regularly discharges a small amount of ink even while in ready to print state to maintain its performance.

The maintenance mode available for each ink configuration setting are as follows:

- **4-color configuration**

Normal	Default setting.
Full	Perform more powerful ink maintenance so that color consistency can be maintained more easily than Normal mode. Use this mode when color inconsistencies appear on the print.

- **6-color configuration**

Light	If you do not usually use white ink for regular printing, set to “Light” to minimize white ink consumption in standby status. • If you are using white ink, cleaning should be performed as needed to ensure color consistency.
Normal	Default setting.
Full	Perform more powerful ink maintenance so that color consistency can be maintained more easily than Normal mode. Use this mode when color inconsistencies appear on the print.

Advanced Settings11
Select Nozzle

If missing lines still persist after several attempts of cleaning, you can check the nozzle conditions by printing the select nozzle patterns and choose only good nozzles for printing.

- This feature is disabled for single-layer printing.
- This feature is enabled only when the effect setting is set to "i-Weave UV" or "None".

Setting values

Select Nozzle1 Print	☞ "Confirm pattern" P. 88
Select Nozzle2 Nozzle Settings	☞ "Nozzle Settings" P. 88

Nozzle Settings

Goes to the nozzle settings menu.

Select Nozzle2
Nozzle Settings

Submenus

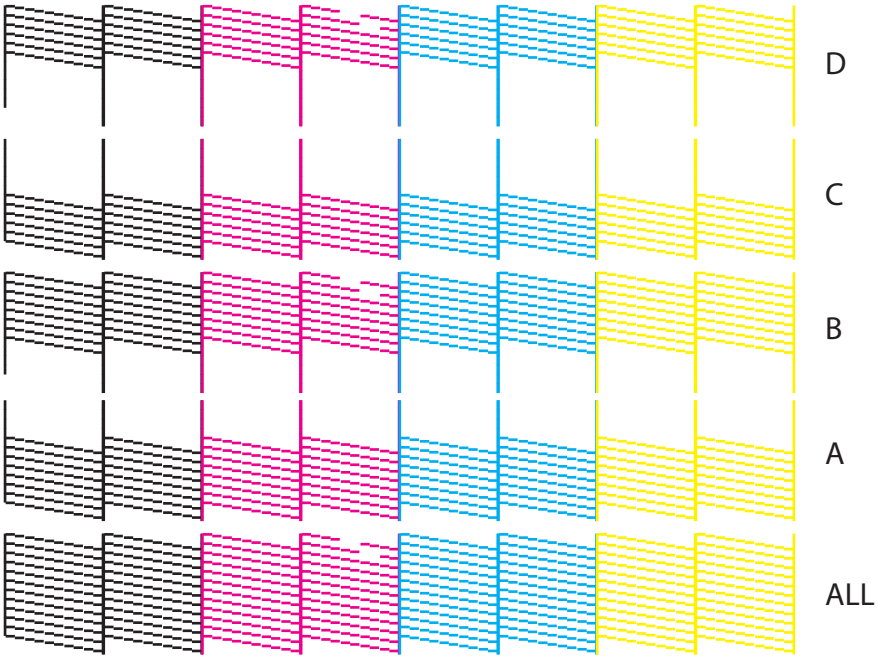
Nozzle Settings: Nozzle ALL	<Nozzle All> / Nozzle A to Nozzle D <> indicates the default setting.

Steps

1. Print the select nozzle patterns and find the pattern that does not have missing lines.
2. Go to "Nozzle Settings" and choose the pattern selected in the Step 1.
   - Select “ALL”, or one of “A” to “D”.

Confirm pattern

- **Tap [Enter] to carry out printing.**
- **Look at the print and find the pattern that all the lines appear clean.**
- **In the example here, the pattern A and pattern C do not have missing lines.**



Nozzle Settings

- **Tap ❯.**
- **Use ^ or v to choose the pattern that does not have missing lines, then tap [Enter].**
- **If there is more than one patterns not suffering from missing lines, choose the one that has more nozzles available for printing.**
- **ALL has the most available nozzles for printing, followed by A and B, C and D (More ALL > A = B > C = D Less).**
- **For example, if the pattern A and pattern C do not suffer from blocked nozzles, you should choose A.**

Setup 3: Initial Settings

Setup3
Initial Settings

Select a language, unit and IP Address displayed on the LCD.

Submenus

Initial Settings1 **Language**	"Initial Settings 1: Language" P. 90
Initial Settings2 **Length**	"Initial Settings 2: Length" P. 90
Initial Settings3 **Remain Ink**	"Initial Settings 3: Remain Ink" P. 91
Initial Settings4 **IP Address**	"Initial Settings 4: IP Address" P. 91
Initial Settings5 **Subnet Mask**	"Initial Settings 5: Subnet Mask" P. 91
Initial Settings6 **Gateway**	"Initial Settings 6: Gateway" P. 92
Initial Settings7 **Alert Buzzer**	"Initial Settings 7: Alert Buzzer" P. 92

Initial Settings 1: Language

Initial Settings1
Language

Selects a language to be displayed on the operation panel.

Setting values

Language: **English**	Default setting.
Language: **Dutch**	
Language: **Spanish**	
Language: **French**	
Language: **Italian**	
Language: **Portuguese**	
Language: **German**	
Language: **Japanese**	

Initial Settings 2: Length

Initial Settings2
Length

Selects a length unit to be displayed on the operation panel.

Setting values

Length: **mm**	Displays the length in millimeters (mm). This is the default setting.
Length: **inch**	Displays the length in inches (inch).

Initial Settings 3: Remain Ink

Initial Settings3
Remain Ink

Selects how the remaining ink amount will be displayed.

Setting values

Remain Ink:
Off

Remaining ink icons will not be displayed. Slot numbers and remaining ink will be displayed in numerals.

Remain Ink:
On

Remaining ink icons will be displayed. This is the default setting.

Initial Settings 4: IP Address

Initial Settings4
IP Address

Sets the IP address of the printer.

- Use ^ to increase a setting value.
- Use v to decrease a setting value.
- Tap [Enter] to confirm your input for a value. The cursor will move on to the next setting value.
- Confirm your input for each value.

Setting values

IP Address:
192. 168. 1. 253

0.0.0.0 to <192.168.1.253> to 255.255.255.255
<> indicates the default setting.

Initial Settings 5: Subnet Mask

Initial Settings5
Subnet Mask

Sets the subnet mask of the printer.

- Use ^ to increase a setting value.
- Use v to decrease a setting value.
- Tap [Enter] to confirm your input for a value. The cursor will move on to the next setting value.
- Confirm your input for each value.

Setting values

Subnet Mask:
255. 255. 255. 0

0.0.0.0 to <255.255.255.0> to 255.255.255.255
<> indicates the default setting.

Initial Settings 6: Gateway

Initial Settings6
Gateway

Sets the gateway.

- Use ^ to increase a setting value.
- Use v to decrease a setting value.
- Tap [Enter] to confirm your input for a value. The cursor will move on to the next setting value.

Confirm your input for each value.

Setting values

Gateway:
192. 168. 1. 254

0.0.0.0 to <192.168.1.254> to 255.255.255.255
<> indicates the default setting.

Initial Settings 7: Alert Buzzer

Initial Settings7
Alert Buzzer

Selects how to turn off the printer beep sound when an error occurs.

- For unattended printing, you can select “Off” setting to avoid continuous buzzer beep.

Setting values

Alert Buzzer:
Off

After several beeps, the printer automatically turns off beep sound.

Alert Buzzer:
On

Press any key on Operation panel to turn off beep sound.
This is the default setting.

Setup 4: Initialization

Setup4
Initialization

Restore the settings of the printer to factory default.

Submenus

Initialization1
User Type ALL

Initialize the User Type settings (Type1 to Type10) in all the submenus of the "Setup 1: User Type".

Initialization2
Advanced Settings

Initialize the settings in all the submenus of the "Setup 2: Advanced".

Initialization3
Initial Settings

Initialize the settings in all the submenus of the "Setup 3: Initial Settings".

Initialization4
ALL

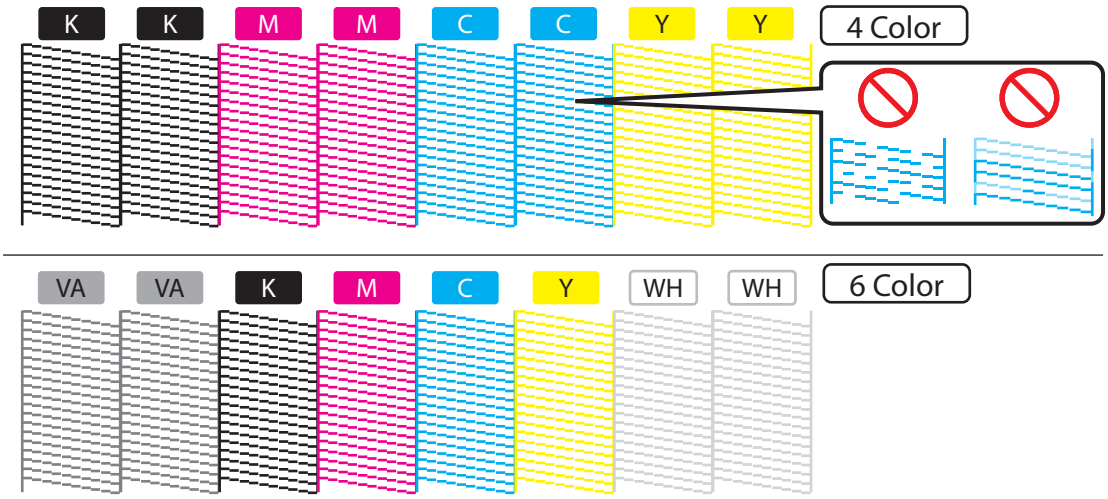
Initialize the settings of all the menus.

Menu2: Test Print

Test Print 1: Nozzle Check

Test Print1
Nozzle Check

It is used to check whether there are any clogged heads, or missing or blurred prints.
(Required media size: width 260 mm × length 35 mm.)
"Run a nozzle check print" P. 39



Note

The printer information (date and time of printing, printer's serial number, firmware version) is printed on the nozzle check pattern.

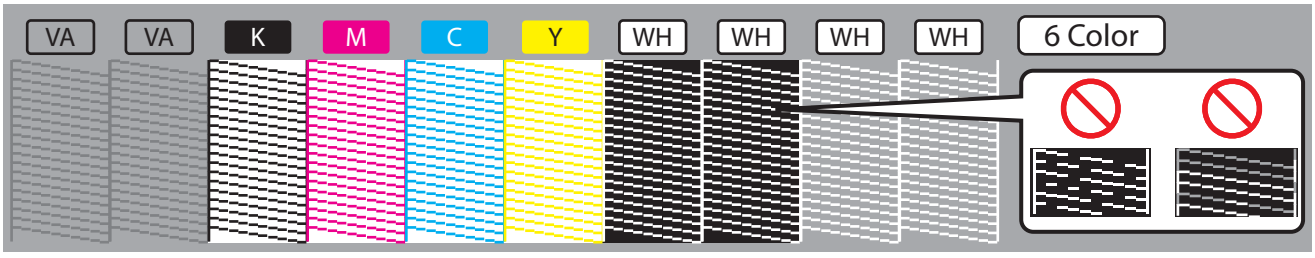
Test Print 2: Nozzle Check B

Test Print2
Nozzle Check B

This is nozzle check for white ink.
The background for some of the nozzle check pattern is printed in color so that the nozzle condition is easy to see.

- Part of the background for the white nozzles is black.
- The background of the KCMY nozzles are white.
- For varnish (and part of white) nozzles, the background is not printed.

(Required media size: width 260 mm × length 35 mm.)
"Run a nozzle check print" P. 39



Note

- "Nozzle Check B" will only appear in the menu if 6-color is set.
- The printer information (date and time of printing, printer's serial number, firmware version) is printed on the nozzle check pattern.

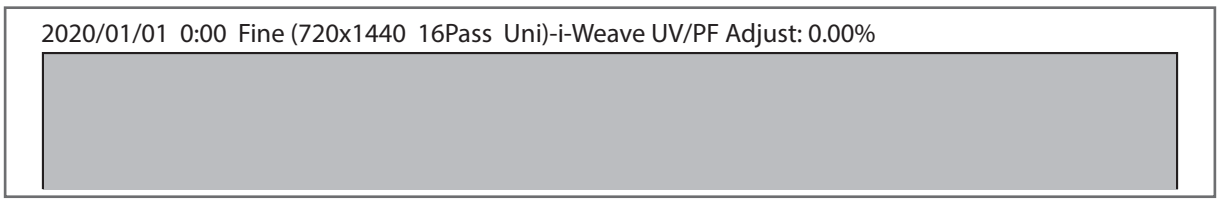
Test Print 3: Mode Print

Test Print3
Mode Print

Print following settings of the selected User Type configured from the operation panel.
Used to confirm the following printing conditions.

- Print quality
- Effect
- Fine adjustment value for feed correction.

(Required media size: width 220 mm × length 25 mm.)

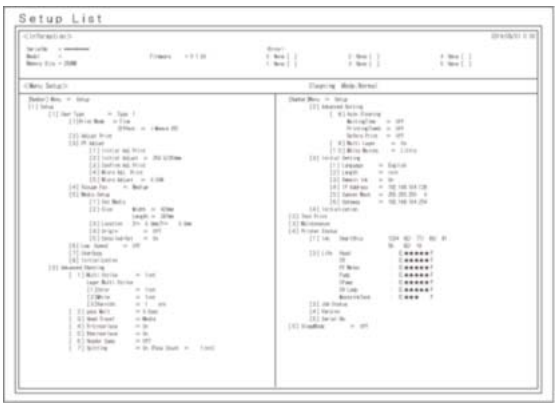


Test Print 4: Setup List

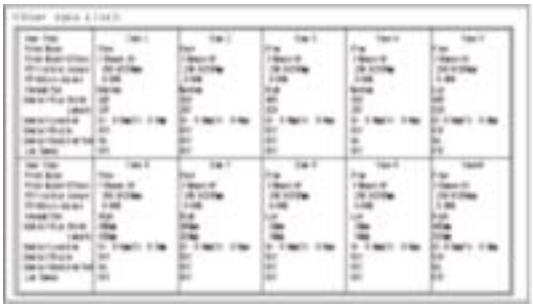
Test Print4
Setup List

Setup list printing is performed.
Use this to check the current setting contents and the User Type.
(Required media size: width 420 mm × length 297 mm)

Setup List



User Type List

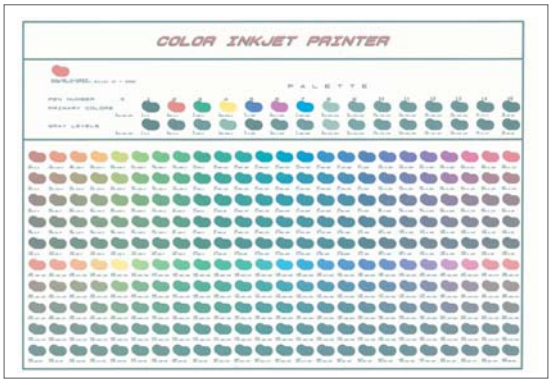


Test Print 5: Palette

Test Print5

Palette

Palette print is executed for the color demonstration.
(Required media size: width 210 mm × length 210 mm.)



Maitenance 1: Cleaning

Maintenance1
Cleaning

Perform head cleaning.

Submenus	
Cleaning Type1 **Short**	Consumes less ink than Normal cleaning.
Cleaning Type2 **Normal**	Perform Normal cleaning if nozzle clogging is found in the nozzle check print.
Cleaning Type3 **Long**	Perform Long cleaning if nozzle clogging still persists after performing Normal cleaning. It consumes more ink than Normal cleaning.
Cleaning Type4 **Little Charge**	Provide higher cleaning effect than Long cleaning, but it also consumes more ink.
Cleaning Type5 **Initial Charge**	Provide higher cleaning effect than Little Charge, but it also consumes more ink. • When “Empty Waste Ink Tank then Tap Enter” appears, empty out the waste ink and tap [Enter]. ☞ **"Drain waste ink into a container" P. 123**

Maintenance 2: Reset Waste Ink

Maintenance2
Reset Waste Ink

This resets the waste ink counter to zero.

☞ "Resetting waste ink counter" P. 125

Maintenance 3: CR Maintenance

Maintenance3
CR Maintenance

Use this for replacing absorption material for the flushing box and the cleaning wiper.

☞ "Replacing absorption material for the flushing box" P. 140
☞ "Replacing the cleaning wiper" P. 143
☞ "Replacing the Emitting Window Glass on the UV-LED Lamp" P. 146
☞ "Replacing UV-LED Lamp Filter" P. 149

Submenus

CR Maintenance
Start —> Enter

Tap [Enter] to replace the absorption material for the flushing box.

- The carriage moves to the center of the printer.
- The cleaning wiper moves upward.

CR Maintenance
End —> Enter

After the replacement is complete, tap [Enter].

- The printer moves the carriage and the cleaning wiper back to each original position.

Maintenance 4: UV Scan

Maintenance4
UV Scan

Performs further UV curing.
Use this when you want to promote ink curing by applying additional UV light.

Submenus

UV Scan1
Start

☞ UV Scan1: Start

UV Scan2
Number of UV Scan

☞ UV Scan2: Number of Scan

UV Scan3
Post Cure

☞ UV Scan3: Post Cure

Note

The range over which the UV scanning is executed will depend on the current settings for “Size” and “Origin” in the “MediaSetting” User Type.

UV Scan1: Start

UV Scan1
Start

Performs further UV curing when needed.
When the media is not loaded, “No Media” is displayed, and the screen returns to the previous screen.

- Application is canceled when the [Cancel] key is pressed for 2 seconds and more while applying UV light.

Setting

UV Scan
Start ->Enter

Tap [Enter] to start.

UV Scan2: Number of Scan

UV Scan2
Number of UV Scan

Sets the number of times to apply UV light on the area.

- The settings here are reflected on “UV Scan1: Start” and “UV Scan3: Post Cure” only.

Setting

Number of UV Scan
(2—16) 4

2 / <4> / 8 / 16
< > indicates the default setting.

UV Scan3: Post Cure

UV Scan3
Post Cure

When it is set to “On”, the printer automatically performs post curing to apply additional UV light after printing.

Setting

Post Cure:
Off

<Off> / On
< > indicates the default setting.

Maintenance 5: Ink Discharge

Maintenance5
Ink Discharge

Discharges the ink in the printer. This operation is performed before moving the printer.

- Before transporting the printer?
  ☞ "Transporting" P. 151
- When turning off the power for up to one month?
  ☞ "If not using the printer for a long time" P. 25

Maintenance 6: Plug Life

Maintenance6
Plug Life

Check and initialize the lifetime counter of the adapter's plug in high capacity ink pack adapter.

Submenus

Plug Life1
Confirm

☞ **Plug Life1: Plug Life Confirmation menu**

Plug Life2
Initialization

☞ **Plug Life2: Plug Life Initialization menu**

Plug Life1: Plug Life Confirmation menu

Plug Life1
Confirm

Check each adapter's plug lifetime counter.

- The lifetime of adapter's plug is indicated by the asterisks (Maximum 5 asterisks: 100% left). As the plug deteriorates, the number of asterisks decreases one by one (20%).
- The adapter's plug should be changed when all of the asterisks have disappeared and "Change" is displayed.
  Replace the adapter's plug.
  ☞ **Replacing Adapter's plug for high capacity ink pack adapter**
- After "Change" appears, "[X] Change Plug OK ->Enter" will be displayed when you are not in this menu.
  You can delete this message by tapping the [Cancel] key.

Setting

Confirm
Slot1: E*** F

Displays the lifetime of adapter's plug in the cartridge slot 1.
The service life in this case is at 60%.

~
~
~

Confirm
Slot6: Change

Displays the lifetime of adapter's plug in the cartridge slot 6.
This means that the plug has already reached to the end of its life. Replace the plug.

Plug Life2: Plug Life Initialization menu

Plug Life2
Initialization

Initialize each adapter's plug lifetime counter.
If you replace the adapter's plug without receiving the replacement message ([X] Change Plug OK ->Enter), use this menu to initialize the counter which you replaced.

Setting

Initialization1
Slot1

Initialize the adapter's plug lifetime counter in the cartridge slot 1.

~
~
~

Initialization6
Slot6

Initialize the adapter's plug lifetime counter in the cartridge slot 6.

Important!

Do not initialize the plug life for the slot number that has not been replaced. This may cause ink leakage.

Maintenance 7: Daily Maintenance

Maintenance7
Daily Maintenance

Use this menu in following cases:

- If the nozzle missing still persists after performing head cleaning.
- If you perform printing all day without entering to sleep mode and you need to perform daily maintenance.

☞ **"Clean daily maintenance parts" P. 137**

Submenus

Daily Maintenance
Start —>Enter

Tap [Enter] to start maintenance.

Daily Maintenance
End —>Enter

After the maintenance is complete, tap [Enter].

- The printer automatically performs the Short cleaning.

Important!

To perform daily maintenance after using the printer for the day, see "Daily Maintenance" P. 126.

Menu4: Printer Status

Printer Status 1: Ink

Printer Status1 Ink	Displays the various information about ink cartridge.

Submenus

1 2 3 4 :100/ 90/ 80/ 70 5 6 :100/ 90	Displays the remaining amount of ink in Slot 1 to Slot 6 from 0% to 100%.
Smart/C :100% Max:24000ml	Display when using Smart / C.

Note

If it is blinking at 10%, smartchip recovery is being performed on the corresponding slot.

☞ **"Smartchip recovery" P. 163**

Printer Status 2: Lifetimes

Printer Status2
life Times

Displays the operational life time of each part.

- The lifetime of each part is indicated by the asterisks (Maximum 5 asterisks: 100% left). As the part deteriorates, the number of asterisks decreases one by one (20%).
- The part should be changed when all of the asterisks have disappeared, and "Change" is displayed. Contact your local MUTOH dealer to ask for replacing parts.
- After "Change" appears, "Life Times [Pump]" or a similar message will be displayed when you are not in this menu. You can delete this message by tapping the [Enter] key.

Submenus

Life Times Head: E*** F	Displays the service life for the print head.
Life Times CR Motor: Change	Displays the service life for the pump.
Life Times PF Motor: E*** F	Displays the service life for the CR motor.
Life Times Pump: E*** F	Displays the service life for the PF motor.
Life Times C Pump: E*** F	Displays the service life for the Circulation pump.
Life Times UV Lamp: E*** F	Displays the service life for the UV lamp.
Life Times WastInkTank: E*** F	Displays the service life for the waste ink tank.

Printer Status 3: Job Status

Printer Status3 Job Status

Displays various information of previous print.

Submenus

Job Status Status: Completed

Displays if the print is completed.

- When the print is completed: [Completed]
- When the print is canceled: [Canceled]

Job Status ToDoLength: XXX.Xm

Displays the total length of print data (media feeding direction).

Job Status Done: XXX.Xm

Displays the printed length.

Job Status Remain: XXX.Xm

Displays the remaining length of print data.

Note

- The values displayed in this function are just standard values, not guarantee the accuracy.
- If the print data includes no length data, all information will be displayed as "0".
- This function is to check the information of print data with the print operation is completed. For the details on data while printing, please refer to the **"Menus you can access while printing"**of **"Menu3: Job Status" P. 47**

Printer Status 4: Version

Printer Status4 Version

Displays the versions of the firmware.

Submenus

Version 1.00

Printer Status 5: Serial No.

Printer Status5 Serial No.

Displays the printer's serial number.

Submenus

Serial No. JI3U000000

Printer Status 6: Total Print Area

Printer Status6
Total Pritnt Area

Displays the total printed area in the printer.

Submenus

Total Print Area
42949672m2

Menu5: Sleep Mode

Sleep Mode 1: Start

Sleep Mode1
Start

Activate Sleep Mode.
Make sure to follow the instructions on the operation panel to perform daily maintenance.

☞ "Sleep Mode" P. 28

Sleep Mode 2: Cleaning Timer

Sleep Mode2
Cleaning Timer

Sets the timer to perform head cleaning in the sleep mode.

Setting values	
Cleaning Timer: **(1-24) 24h**	<Off> / 1 h / 2 h / 3 h / 4 h / 5 h / 6 h / 9 h / 12 h / 18 h / 24 h <> indicates the default setting. If you set an interval, the display will shift to “SleepMode 1: Start”.

Important!

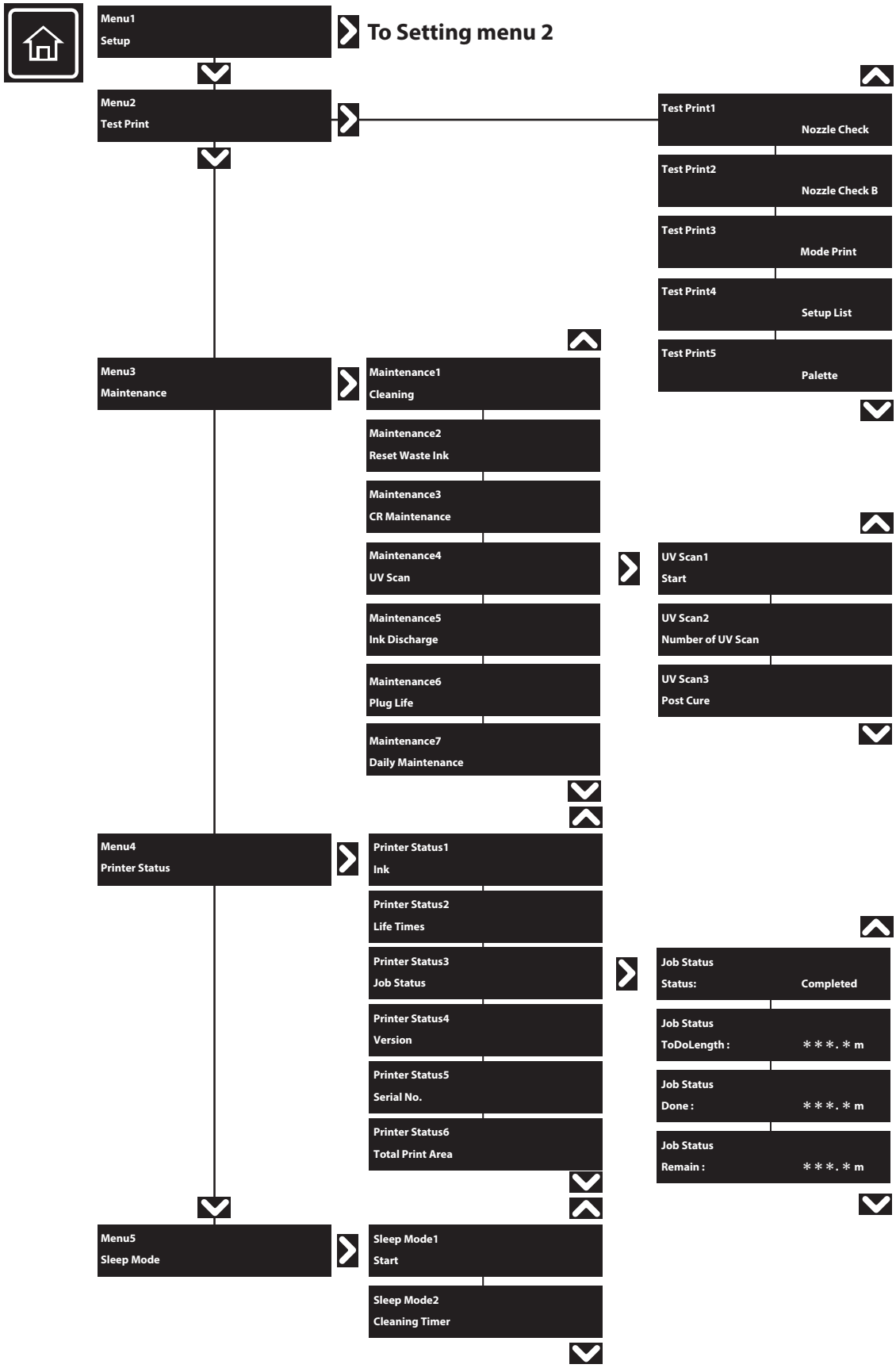
In following cases, the printer does not perform head cleaning by the timer in sleep mode.

- **Front cover is open.**
- **The waste fluid tank is full.**
- **Ink is low (or no ink).**
- **The ink cartridge (or high-capacity ink pack adapter) has been removed.**
- **Non-genuine ink is loaded in the printer, etc.**

If one of the above conditions occurs during head cleaning, cleaning is stopped.
When the printer returns to a normal state, head cleaning is restarted.

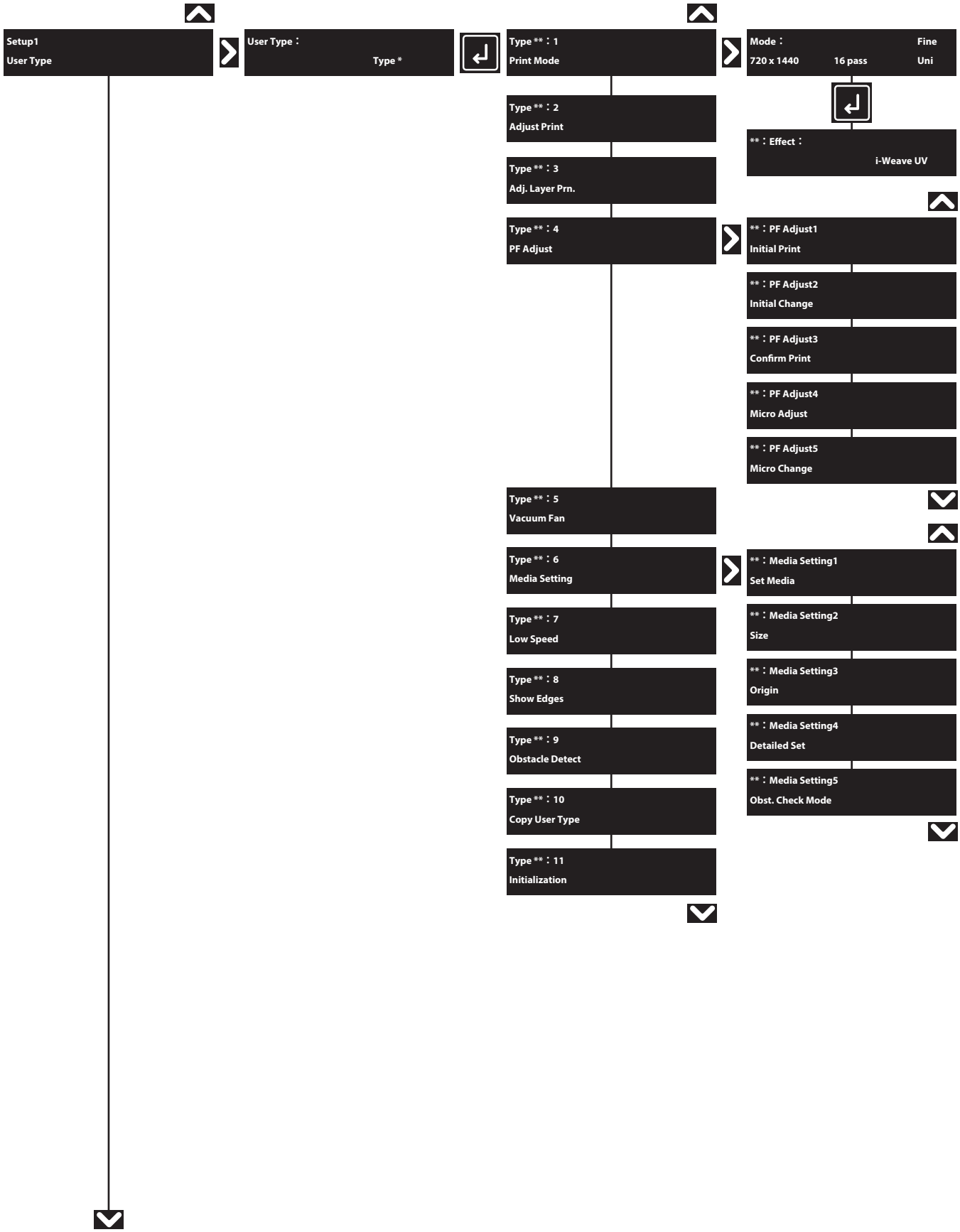
Menu chart

Setting menu 1



Setting menu 2

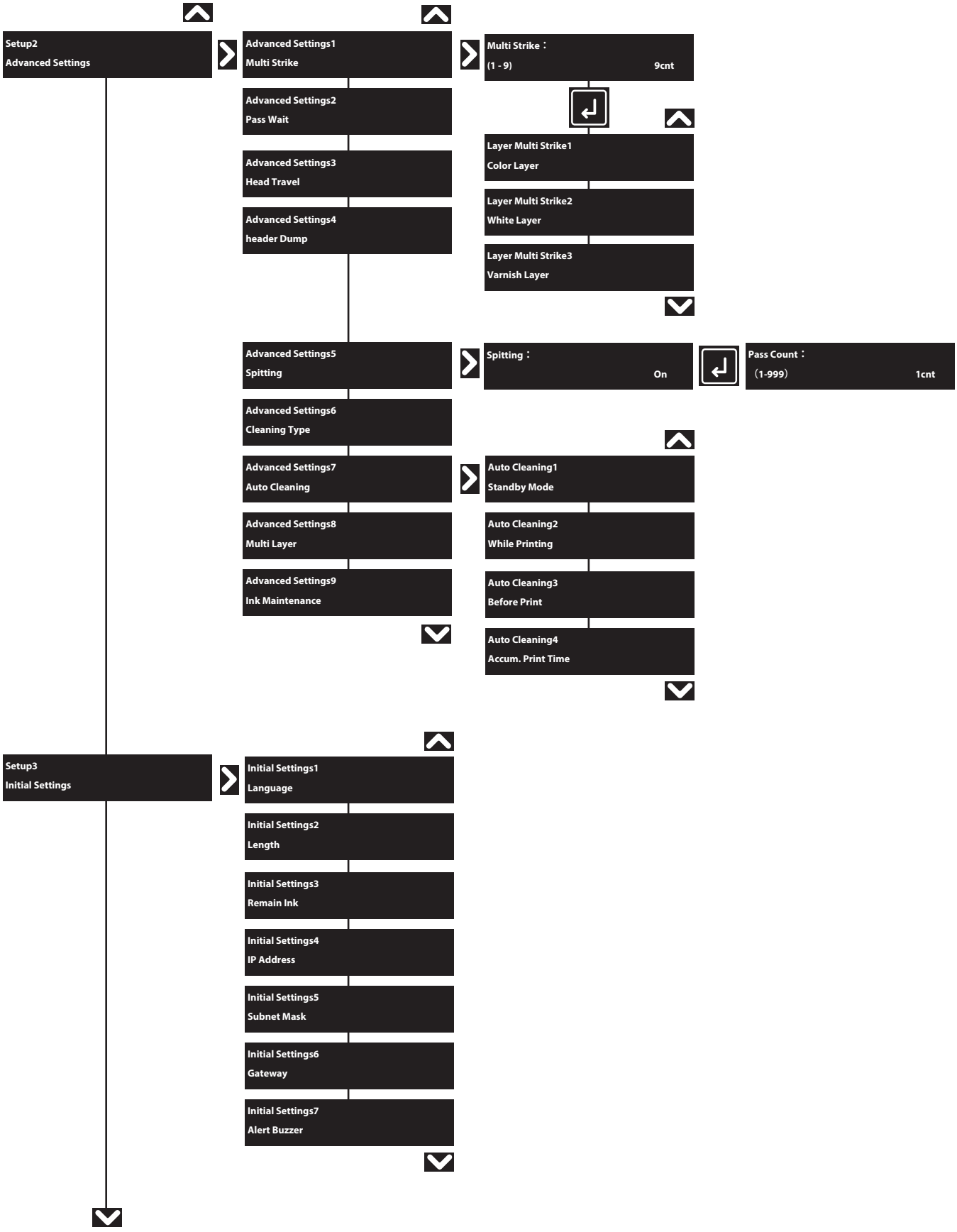
From Setting menu 1



To Setting menu 3

Setting menu 3

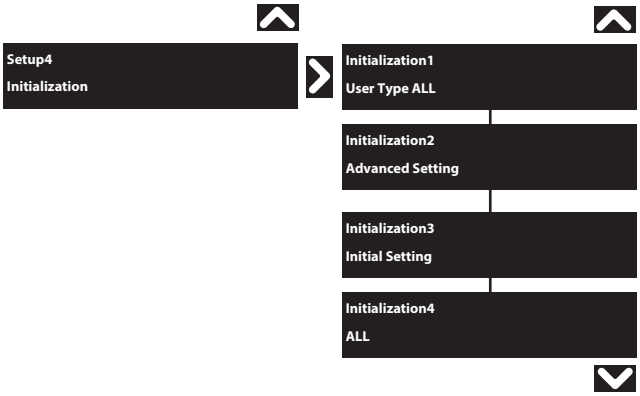
From Setting menu 2



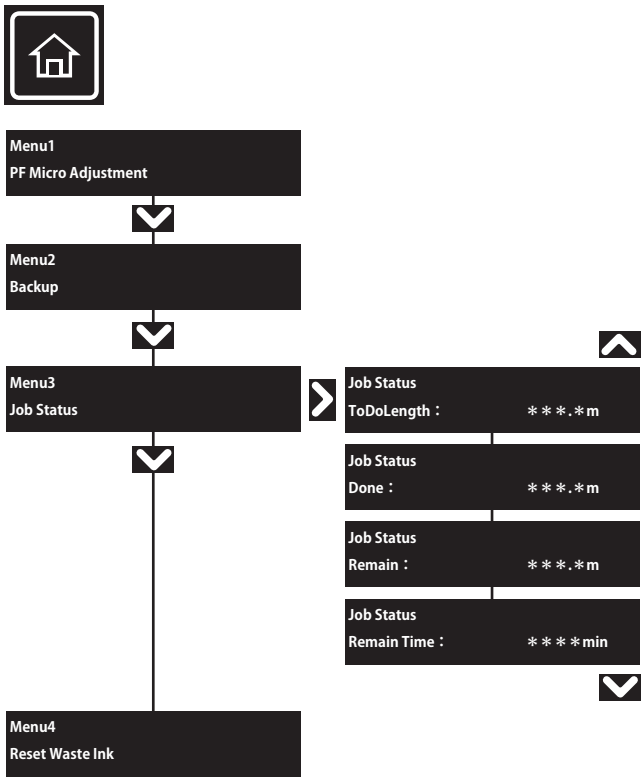
To Setting menu 4

Setting menu 4

From Setting menu 3



Menu during printing



Chapter 3 Maintenance

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Emptying waste ink tank 122

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Transporting 151
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Maintenance

To maintain the performance of this product, please conduct maintenance by yourself.
The types of maintenance are shown next.

Before and after daily operation	"Wearing the protective equipment" P. 113 "Agitating ink" P. 114 "Nozzle check and cleaning" P. 39
After daily operations	"Daily Maintenance" P. 126
Based on your usage condition	"Head cleaning" P. 135 "Replacing ink" P. 118 "Replacing Adapter's plug for high capacity ink pack adapter" P. 121 "Emptying waste ink tank" P. 122 "Clean daily maintenance parts" P. 137 "Replacing absorption material for the flushing box" P. 140
Monthly	"Inside cleaning" P. 139
Every six months	"Replacing the cleaning wiper" P. 143

Important!

In following cases, please contact your local MUTOH dealer to request service personnel.

- **The same system error repeatedly occurs.**
- **The message to notify the life of motor, pump, or UV lamp is displayed.**

"Messages and Error Messages" P. 160

Wearing the protective equipment

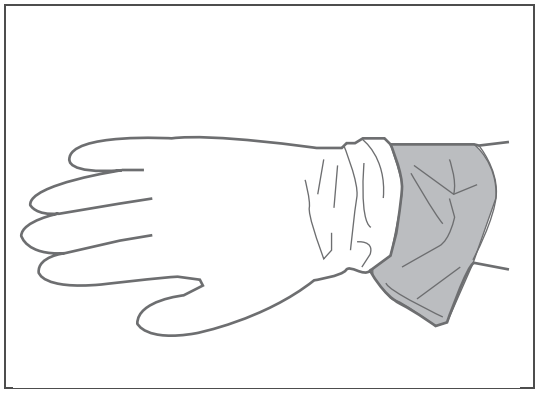
CAUTION

Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction. When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.

Especially when performing any of the following operations, be sure to wear the supplied gloves (or solvent resistant gloves) and goggles.

- "Agitating ink" P. 114
- "Replacing ink" P. 118
- "Replacing Adapter's plug for high capacity ink pack adapter" P. 121
- "Emptying waste ink tank" P. 122
- "Daily Maintenance" P. 126
- "Clean daily maintenance parts" P. 137
- "Replacing absorption material for the flushing box" P. 140
- "Replacing the cleaning wiper" P. 143

How to wear the supplied gloves



Wear the rubber gloves over the polyethylene gloves.

CAUTION

Do not touch uncured UV ink with bare hands.

- **If glove becomes contaminated with ink, replace it with new.**
- **If protective clothing becomes contaminated with ink, immediately remove and wash for re-use.**
- **If ink gets on skin, immediately wash with soap and plenty of water for 15 minutes. Seek medical advice/ attention if irritation or inflammation are present.**
- **If ink gets in eyes, flush eyes with plenty of water for 15 minutes and seek medical advice/attention immediately.**
- **If swallowed, rinse mouth immediately and do not induce to vomiting. Seek medical advice/attention.**

Agitating ink

To prevent ink settling and coagulation, you must agitate the ink in the following timing:

- Before installing new ink cartridge
- When any of the messages below appears

6-color configuration:

Agitate W Ink

Agitate the White (Wh) ink.
- Displays every 12 hours.

Agitate KMCY Ink

Agitate the Black (K), Magenta (M), Cyan (C), and Yellow (Y) inks.
- Displays every 72 hours when using UH21 ink.
- Displays every 48 hours when using US11 ink.

Agitate KMCYW Ink

Agitate the Black (K), Magenta (M), Cyan (C), Yellow (Y), and White (Wh) inks.

4-color configuration:

Agitate ALL Ink

Agitate the Black (K), Magenta (M), Cyan (C), and Yellow (Y) inks.
- Displays every 72 hours when using UH21 ink.
- Displays every 48 hours when using US11 ink.

Important!

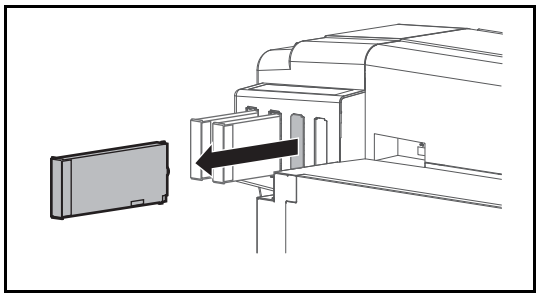
- **Agitate the ink periodically.**
  Otherwise, the ink in the ink cartridges (or ink bags) settles or coagulates and may cause poor print quality or a malfunction.
- **The agitate ink message for CMYK inks may sometimes appear at the same timing as the one for white ink.**
- **You should agitate the ink when the message appears. Otherwise, for 12 hours after the message appears, you will repeatedly have to wait a certain time before you can print. When 12 hours have passed, the printer will not print any data. In either case, you can restore the printer to normal condition by agitating the ink.**

⚠ CAUTION

Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction.
When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.

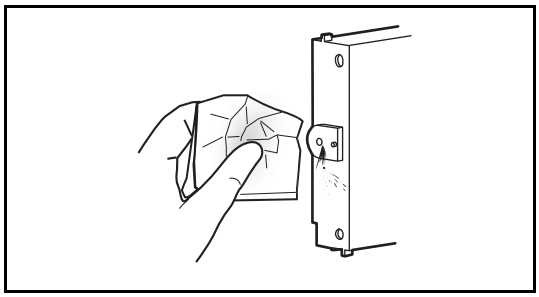
Procedure for ink cartridge

[1]



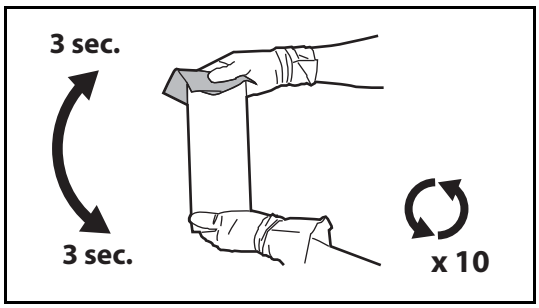
- Check the power is ON.
- Wear the supplied gloves and remove ink cartridges from Ink cartridge slots.

[2]



Using the paper towel provided with the printer to wipe off the ink attached to the printer plug of Ink cartridge.

[3]

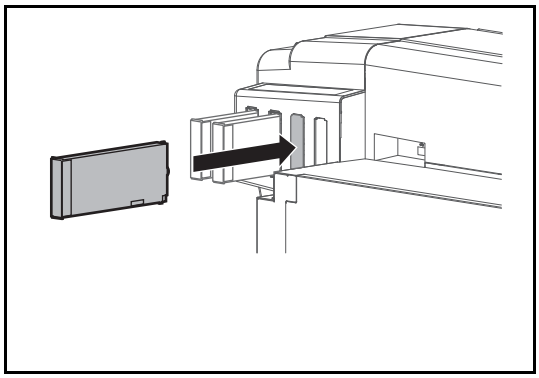


- Place the lint-free cloth over the ink plug of the cartridge, turn the plug up and maintain vertical position for three seconds.
- Rotate cartridge upside down (plug facing down) and hold for three seconds.
- Repeat it 10 times.

Note

- **You do not have to agitate varnish ink before use.**

[4]



Re-insert the ink cartridges into Ink cartridge slots.

- Make sure to match the color of the ink cartridge with the color of the label above the cartridge slot.
- The arrow mark should face up.
- Insert the cartridge all the way to the end.

Important!

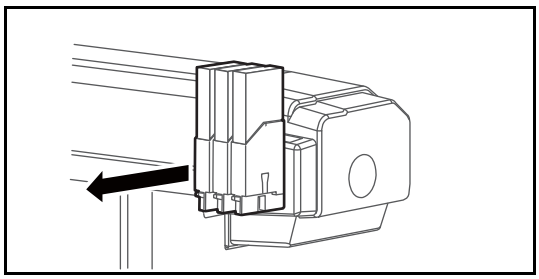
Make sure you insert the ink cartridges into the original slots. Even when you have the same color ink cartridges, do not switch and insert them into different slots.

Procedure for high-capacity ink pack adapter

Note

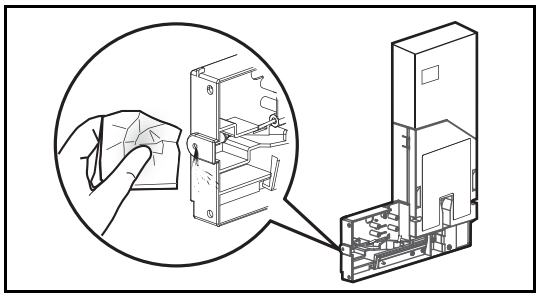
For proper instructions of high capacity ink pack adapter, see the high capacity Ink Pack Adapter Operation Manual.

[1]



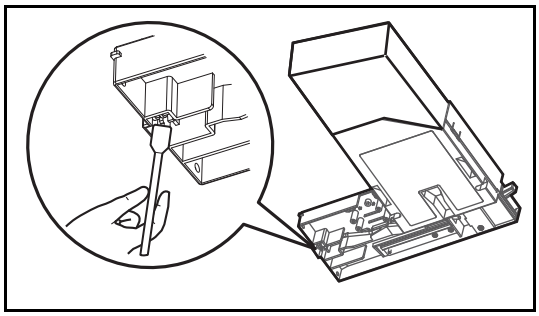
- Check that the power is ON.
- Wear the supplied gloves and remove high-capacity ink pack adapters from the cartridge slots.

[2]



Using the paper towel provided with the printer to wipe off the ink attached to the insertion point for high capacity ink pack adapters.

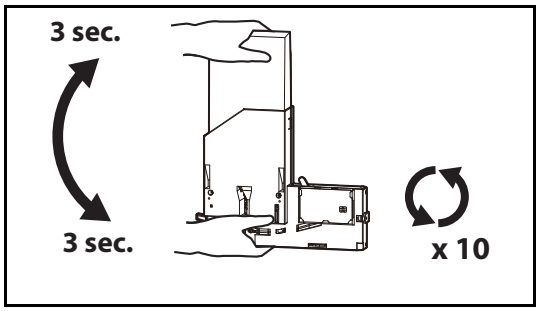
[3]



Tilt high capacity ink pack adapters, use cleaning stick provided with the printer, and absorb the ink collected around the tube connectors.

- Tilt high capacity ink pack adapter so that the caution label is facing down.
- Tilt high capacity ink pack adapter so that the insertion point is lowered a little.

[4]

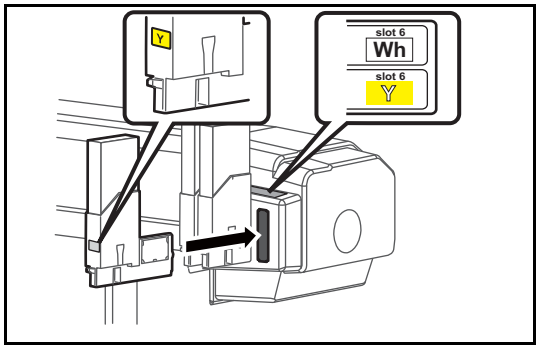


- To prevent the ink bag and the high capacity ink pack adapter from separating, hold one hand against the top of the ink bag. Rotate the plug of the ink bag vertically and hold for 3 seconds.
- Then, invert the ink bag with the adapter and hold for 3 seconds.
- Repeat that 10 times.

Note

- **You do not have to agitate varnish ink before use.**

[5]



Re-insert the high capacity ink pack adapters into Ink cartridge slots.

- Make sure to match the color of the ink bag with the color of the label above the cartridge slot.
- Insert all the way to the end.

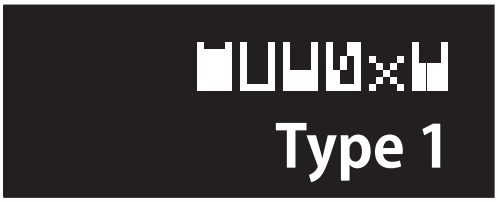
Important!

Make sure you insert the high capacity ink pack adapters into the original slots. Even when you have the same color ink packs, do not switch and insert them into different slots.

Checking ink level and replacing ink

Checking ink level

[1]



Check the remaining ink icons.

- To do a more detailed check, tap [Home].

Note

You can alternatively check the remaining ink amount via the MSM's remote panel.

"Launching MSM" P. 15

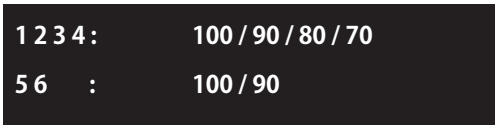
[2]

- Use ▼ to choose the menu shown left.
- Tap ▶.

[3]

Tap ▶.

[4]



- Displays the remaining ink in Slots 1 to 6, as percentages of the full levels.

Note

If it is blinking at 10%, smartchip recovery is being performed on the corresponding slot.

"Smartchip recovery" P. 163

When ink needs to be replaced soon

When the ink gets low, the status LED flashes red with buzzer beeps.

Steps

[1]

Tap [Enter].

- The buzzer stops.
- The printer status and ink level warning message appear alternately every 2 seconds.
  The ink slot indicator where the cartridge needs to be replaced flashes every 0.5 seconds.
- In the figure to the left, the slot 2 ink is nearing replacement.

[2] Prepare an ink to replace.

Note

Sleep mode continues after stopping the buzzer.

Replacing ink

When your printer is running out of ink, the status LED turns on red with beeps and printing is paused.
The printer can resume printing by replacing with a new ink.

Important!

- **Do not replace ink when the power of this product is OFF.**
  Ink level cannot be detected correctly.
- **In case you do not have a replacement at hand, leave the empty ink cartridge inserted in the printer. Leaving the printer with the ink removed may cause the print head to clog.**
  - **If ink is moved from cold to warm place, leave it at least three hours.**

WARNING

Keep ink cartridges (or ink bags) away from fire or high temperature objects.
It may cause fire.

Procedure for ink cartridge

[1]

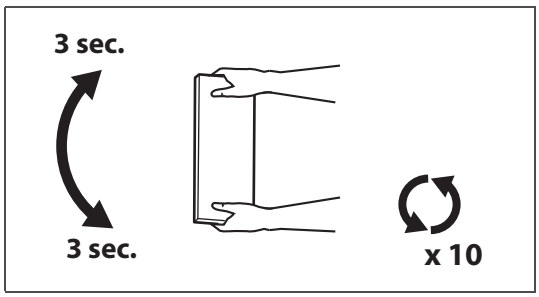
Tap [Enter].

- The buzzer stops.
- In the icons shown on the left, the Slot 1 and Slot 6 cartridges need replacing.

Note

Sleep mode continues after stopping the buzzer.

[2]



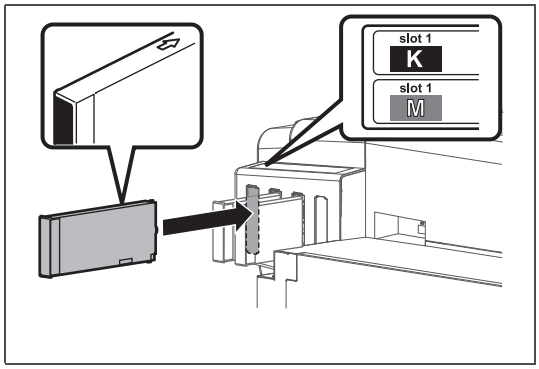
Make sure you agitate the ink cartridge after you unpack it.

- Turn the ink plug upward and wait for three seconds.
- Next, turn the ink plug downward and wait for three seconds.
- Repeat that 10 times.

Note

- When replacing varnish ink, you do not have to agitate it.

[3]



Remove the empty ink cartridge and insert the new one.

- Make sure to match the color of the ink cartridge with the color of the label above the cartridge slot.
- The arrow mark should face up.
- Insert each cartridge to firmly seat it into each slot.

Important!

- Make sure you insert the ink cartridges into the original slots. Even when you have the same color ink cartridges, do not switch and insert them into different slots.

Procedure for high-capacity ink pack adapter

1. Removing the high capacity ink pack adapter

[1]

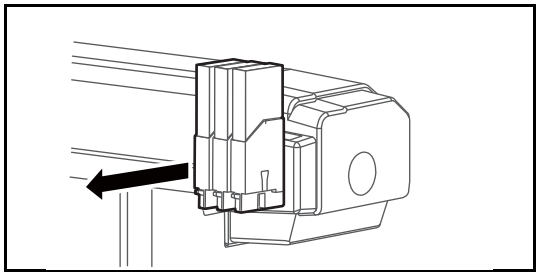
Tap [Enter].

- The buzzer stops.
- In the icons shown on the left, the Slot 1 and Slot 6 ink bags need replacing.

Note

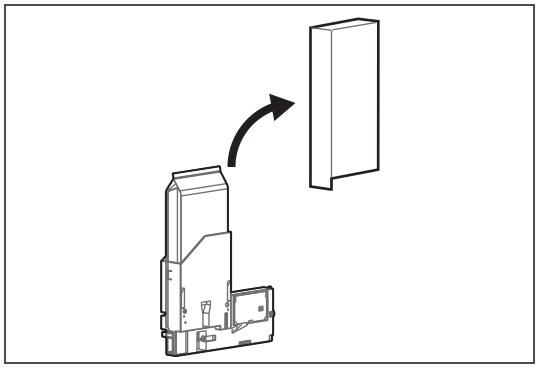
Sleep mode continues after stopping the buzzer.

[2]



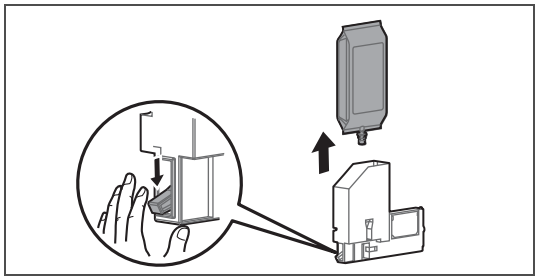
Remove high capacity ink pack adapters from the ink cartridge slots.

[3]



Detach the light-shielding cover from the ink bag.

[4]

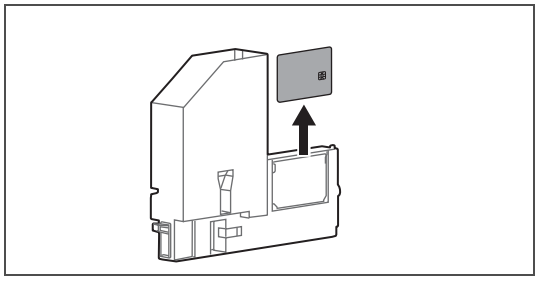


Lower the lock lever on the high capacity ink pack adapter and detach the empty ink bag.

Note

Place the used ink bag in a plastic bag or the like and dispose of it in accordance with local ordinances and municipal instructions.

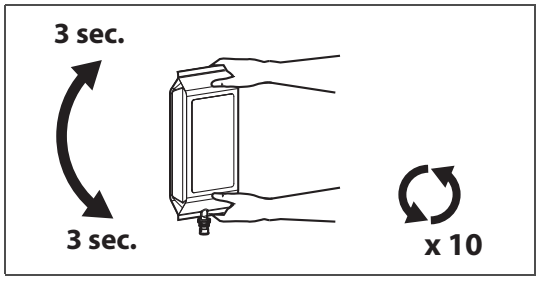
[5]



Remove the smartchip card from the high capacity ink pack adapter.

2. Attaching ink bag

[1]



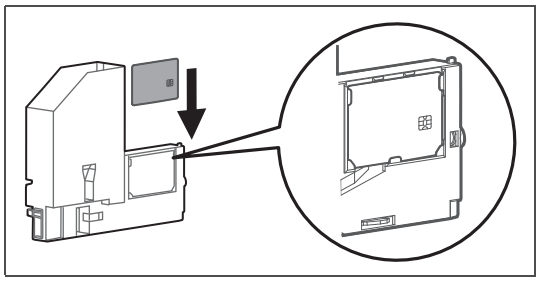
Prepare the new ink bag, and agitate it as instructed below.

- Turn the ink plug upward and wait for three seconds.
- Next, turn the ink plug downward and wait for three seconds.
- Repeat that three times.

Note

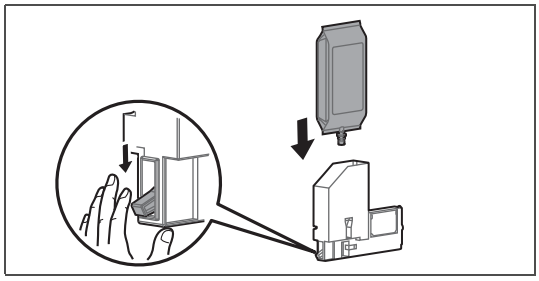
When replacing varnish ink, you do not have to agitate it.

[2]



Slide the smartchip card into the tabs of the adapter.

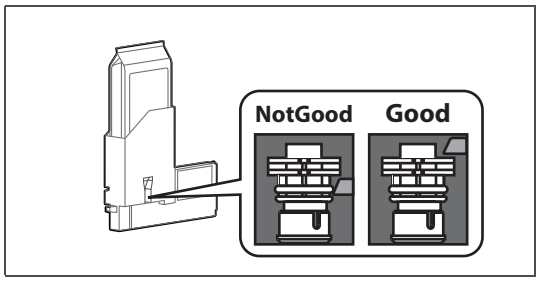
[3]



While lowering the lock lever of the high capacity ink pack adapter, insert an ink bag.

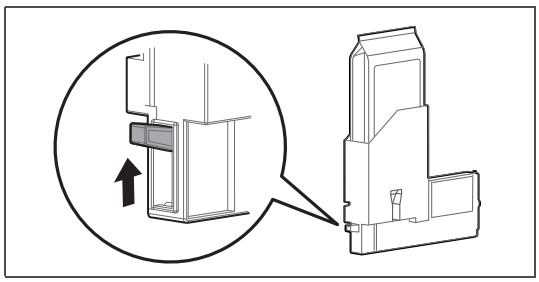
- Make sure to fully insert the ink bag into the high capacity ink pack adapter.

[4]



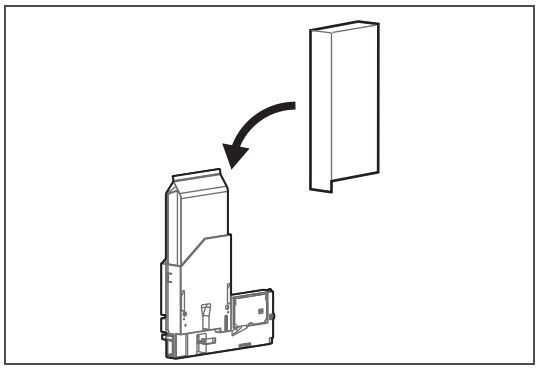
Confirm ink bag is fully seated by checking the lock mechanism is at the top of the ink delivery neck through the observation window, see proper placement in illustration left.

[5]



Make sure that the lock lever of the high capacity ink pack adapter is back to its original position.

[6]

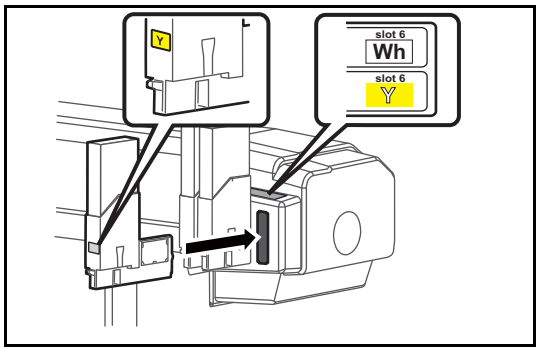


Place the light-shielding cover over the ink bag.

Note

Insert the light-shielding cover inside the high capacity ink pack adapter to only cover the ink bag.

[7]



Re-insert the high capacity ink pack adapters into Ink cartridge slots.

- Make sure to match the ink color with the color of the label above the cartridge slot.
- Insert all the way to the end.

Important!

Make sure you insert the high capacity ink pack adapters into the original slots. Even when you have the same color ink packs, do not switch and insert them into different slots.

Replacing Adapter's plug for high capacity ink pack adapter

When the plug life ends, the status LED turns on red and a message is displayed.
Follow the procedure below to replace the plug.

[1]

Tap [Enter].

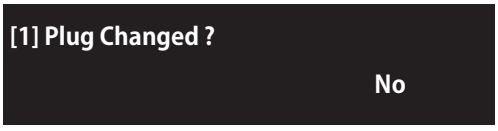
[2]

The message on the left will appear.

[3] Follow the procedure described in the operation manual for high capacity ink pack adapter.

☞ "3.3 Replacing Adapter's plug"

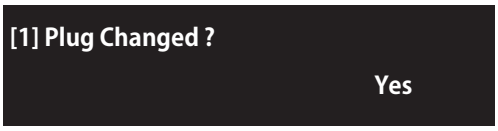
[4]



When inserting the replaced adapter, the message on the left will appear.

- Tap ▼.

[5]



Tap [Enter].

- The adapter's plug lifetime counter will be reset.

Important!

- **If the adapter's plug is not replaced, do not choose "Yes".**
- **Ink leakage may occur by continuing to use such adapter's plug.**

Emptying waste ink tank

When a certain amount of waste fluid has been collected in the waste ink tank, the status LED turns on red and beeps.
Drain all waste ink in the waste ink tank into a container. After emptying the waste ink tank, reset the waste ink counter.

Display messages

NeatFullWasteInkTank	The waste ink tank is about to become full. Mutoh recommends that you empty the waste ink tank before it is completely full. • Printing or other operation will continue while you do this.
Full WasteInkTank	The waste ink tank has become full. Empty the waste ink tank immediately. • Printing or other operation will stop. It will resume when you have carried out "Reset Waste Ink".

WARNING

- **Keep out of direct sunlight and store the waste ink container in a cool, dark place.**
- **Keep away waste fluid from fire and high temperatures.**
- **Do not mix waste ink with any other chemical substances, not even in small amounts. When mixed with other chemicals (e.g. oxidants), heating may occur.**
- **Use a HDPE container with light blocking properties to store waste liquid.**
- **When storing for a long time, slightly loosen the cap on the container to allow air. Do not tightly close it.**

CAUTION

Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction. When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.

Important!

Empty the waste ink tank before moving the printer.

1. Drain waste ink into a container

[1] Prepare a container to collect waste ink.

Important!

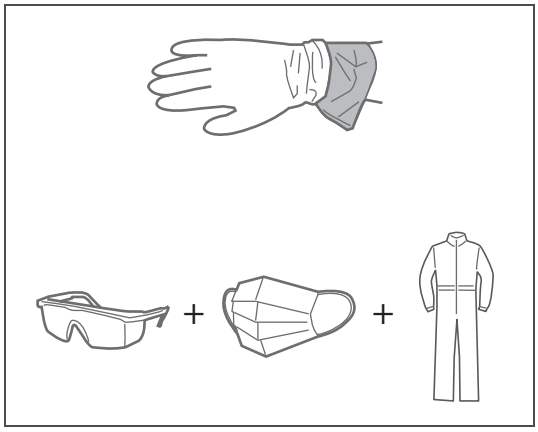
The capacity of waste ink tank is 2,000 ml. Make sure to prepare a container that has enough capacity when discharging waste ink.

Note

If no or small amount of waste fluid is collected in the waste ink tank, you may not be able to drain fluid out of the tank.

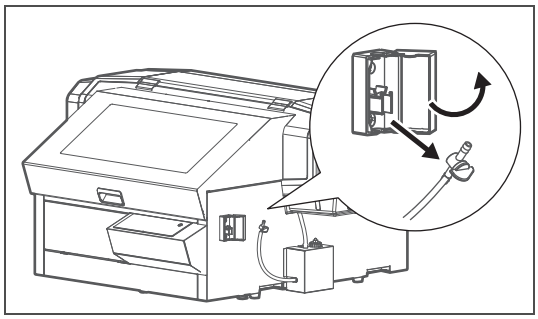
[2] Cover the floor just under the waste ink tank using a paper that you do not use.

[3]



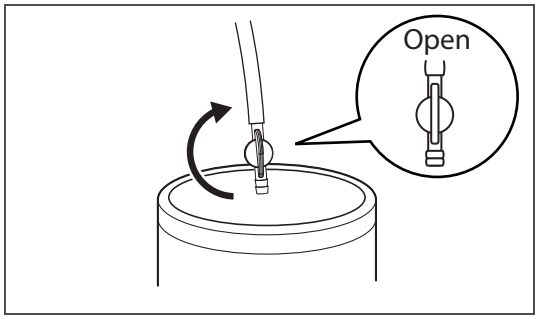
- Wear the rubber gloves over the polyethylene gloves.
- Wear personal protective equipment such as goggles, protective mask or clothing.

[4]



Open the cover of the drain tube valve clamp, then unhook the drain tube valve to take it out from the clamp.

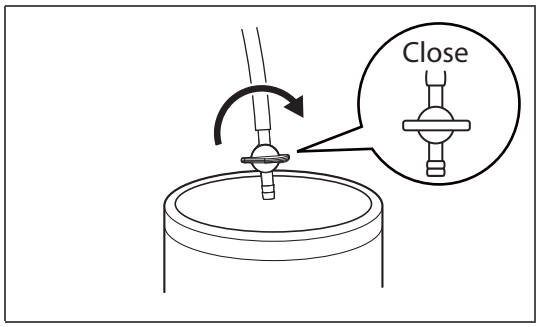
[5]



Put the tip of the drain tube valve in the empty container and open the drain tube valve to drain waste ink from the waste ink tank.

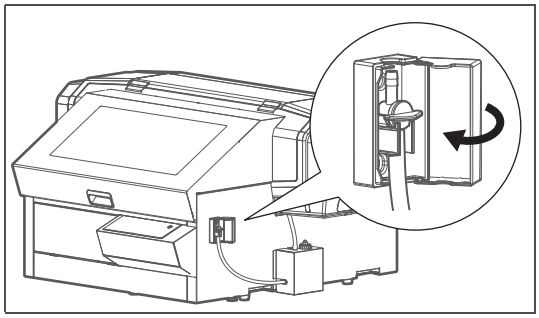
Important!

Waste ink may splash while draining from the waste ink tank.
Make sure to put the tip of the drain tube valve in the empty container to drain waste ink.

[6] 

Once you finish emptying the waste ink tank, close the drain tube valve.

[7] Use a dry cloth to clean the tip of drain tube valve.

[8] 

Hook the drain tube valve on the drain tube valve clamp, then close the cover.

[9] Dispose of the waste fluid as an industrial waste product.

WARNING

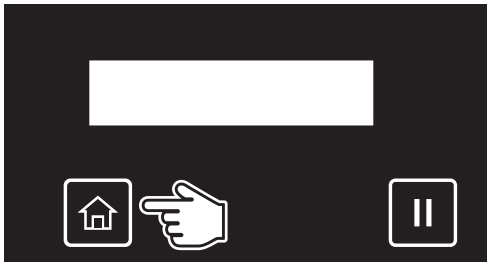
- **You are obligated to properly dispose of waste fluid from the printer in compliance with Wastes Disposal and Public Cleansing Act and local ordinances. Delegate disposal to an industrial waste disposal contractor.**
- **Waste fluid from this product is harmful to aquatic organisms. Avoid the waste fluid from out flowing to sewage or natural water systems.**

2. Resetting waste ink counter

CAUTION

Before resetting the counter, make sure the waste ink tank is completely empty.
If not, it can lead waste ink leaks inside or from the printer.

[1]



Tap [Home].

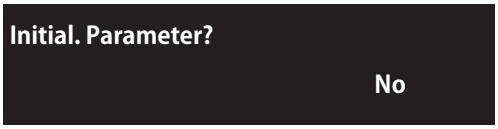
[2]

- Use ▼ to choose the menu shown left.
- Tap ❯.

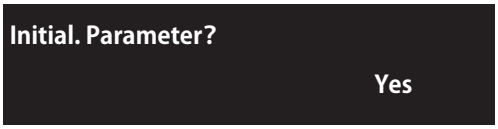
[3]

- Use ▼ to choose the menu shown left.
- Tap ❯.

[4]



The message on the left will appear.



- Use ▼ to choose the menu shown left.
- Tap [Enter].

[5]

The waste ink counter is being reset.
- The waste ink tank has been emptied.

Note

- "Reset Waste Ink" can alternatively be carried out via "Maintenance" in the printer driver's "Utility" section.
- It can also be carried out via the MSM's remote panel.
- To carry out [Reset Waste Ink] during printing, see **"Menu4: Reset Waste Ink" P. 48** under **"Menus you can access while printing"**.

Daily Maintenance

Flow of Daily Maintenance

This printer requires daily maintenance.
Follow the steps below to perform daily maintenance after you finish your printing for the day.

- "Perform Daily Maint." is prompted on the operation panel after certain period of time from the previous daily maintenance.
  Make sure to perform daily maintenance when prompted.

Important!

If you perform printing all day without entering to sleep mode, make sure to perform daily maintenance once a day.
Failure to perform daily maintenance may affect print quality or result in damage to the printer.
To perform daily maintenance, go to "Maintenance 7: Daily Maintenance" on the operation panel.

"Maintenance 7: Daily Maintenance" P. 100
"Clean daily maintenance parts" P. 137

Prepare required items for Daily Maintenance

↓

Leave the printer in Sleep Mode

↓

Clean the UV Lamp

↓

Moisten the surface of print head nozzles

↓

Clean the print head circumference

↓

Clean the cleaning wiper and the circumference of the cap

↓

The printer automatically performs the Short cleaning

↓

Daily Maintenance completed !

Preparing for Daily Maintenance

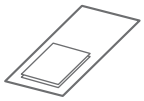
Required Items

[1] Prepare the following items to perform daily maintenance.

Polyethylene gloves

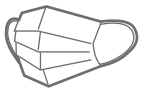
Rubber gloves

Protective goggles



Paper towel or Polyester knit wiper

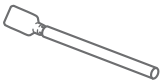
Dropper



Protective mask

Dedicated maintenance cleaner

Plastic cup



Cleaning stick

Tray

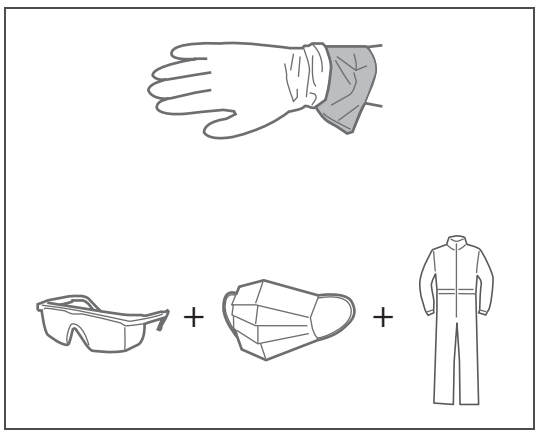
Scraper

Protective clothing

Important!

- **Use a paper towel supplied with the printer or optional polyester knit wiper. DO NOT use a tissue. Lints or flakes on tissue may cause damage to the print head.**
- **DO NOT use non-dedicated maintenance cleaner.**
- **If you want to purchase the optional maintenance cleaner, contact your local Mutoh dealer or nearest Mutoh sales office.**

[2]



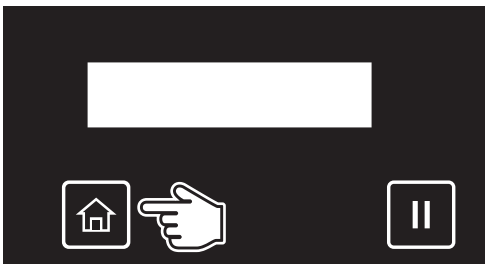
- Wear the rubber gloves over the polyethylene gloves.
- Wear personal protective equipment such as goggles, protective mask or clothing.

⚠ CAUTION

Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction. When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.

Entering to sleep mode

[1]



Tap [Home].

[2]

- Use ▼ to choose the menu shown left.
- Tap ▶.

[3]

Tap ▶.

[4]

Tap [Enter].

[5]

Tap [Enter].

[6]

The message on the left will appear.

- Remove the media and the jig on the table, and then tap [Enter].

- The table, carriage and cleaning wiper move to gain access to daily maintenance.

[7]

The message on the left will appear.

- You can start maintenance.

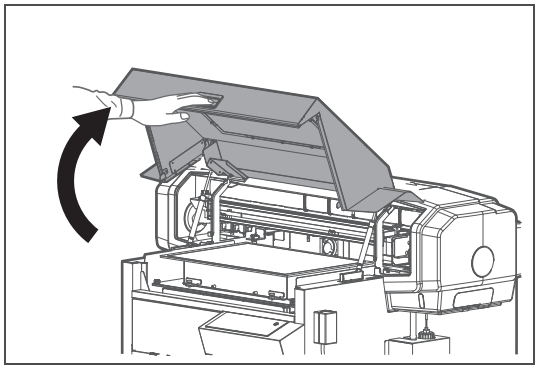
Important!

Make sure to complete this maintenance within 5 minutes while the printer is in Daily maintenance state.

1. Cleaning of UV Lamp

CAUTION

After printing, the UV-LED lamp may get hot.
Leave it for 30 minutes to cool down and then start maintenance.

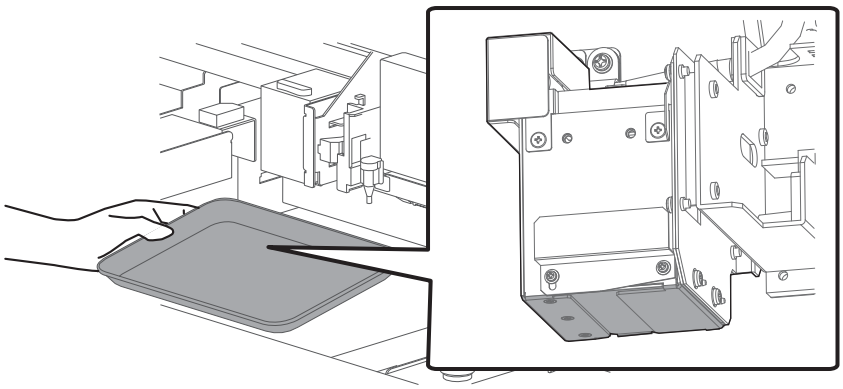
[1] 

Hold the handle on the front cover to gently open it.

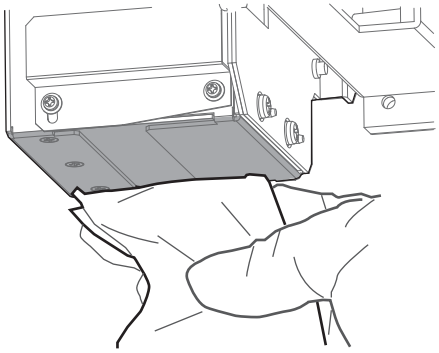
Important!

Do not place any object inside the printer.

[2] Look in the stainless tray to check for ink or dust on the UV-LED lamp.
If no ink or dust is found on the UV lamp, skip this step and move on to "Moistening the surface of print head nozzles" P. 131.

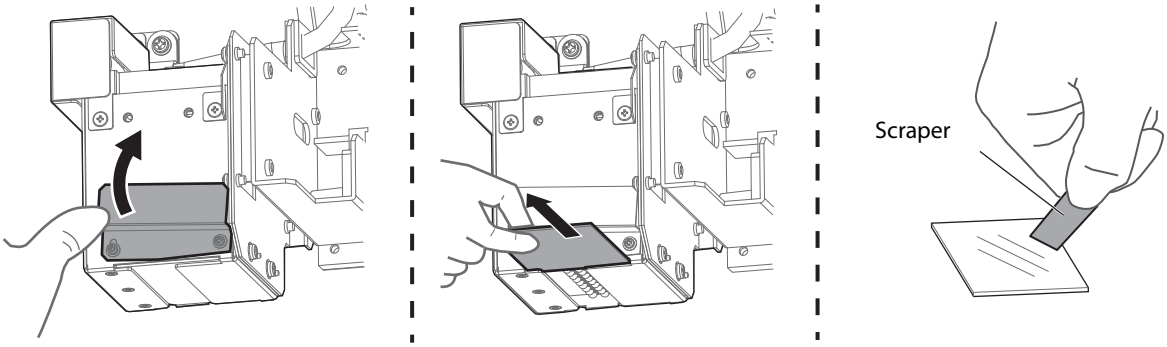


[3] Use a paper towel to clean dust or ink off the underside of the UV-LED lamp.



[4] If the ink cannot be removed completely, remove the emitting window glass from the lamp and use the supplied scraper to clean it off.

- Slide up the left side of the exhaust fan cover. The right side screw serves as a fulcrum.
- Slide the glass on the bottom of the lamp towards the front to remove it.
- Press the scraper on the ink deposits with a slight angle and scrape it off.
- Use the paper towel to clean the ink scraped from the glass.
- Put the glass back on the lamp.



Important!

- **Make sure to use the scraper supplied with the printer.**
- **Do not press the edge of the scraper too hard. This will cause damage to the glass.**
- **Make sure to put the glass back on the UV-LED lamp after cleaning. Using the printer without the glass will reduce the intensity of the lamp and will cause damage to the lamp.**

[5] Next moisten the surface of print head nozzles.

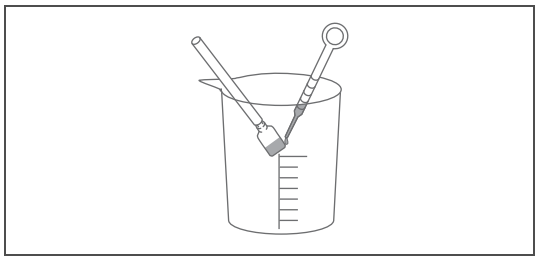
2. Moistening the surface of print head nozzles

Important!

During cleaning, please note the followings:

- **Always follow this steps to perform daily maintenance.**
- **When moistening the surface of nozzles, do not use the cleaning stick already used to clean the print head circumference, cleaning wiper or cap circumference. Doing so may result in damage to the print head.**
- **Always use a new cleaning stick and dampen it with dedicated maintenance cleaner.**
  DO NOT use non-dedicated maintenance cleaner. It may cause nozzle clogging.
- **Do not touch the tip of a cleaning stick with fingers.**
  If sebum is adhered, it can cause damage to the print head.
- **Do not reuse a cleaning stick.**
  Dusts can adhere causing damage to the print head.

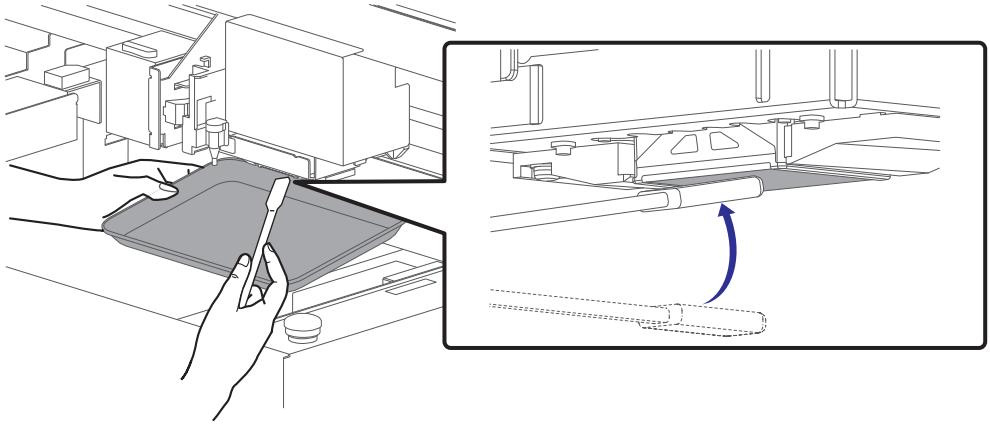
[1]



- Put a cleaning stick in the plastic cup.
- Use the dropper to dampen the swab of cleaning stick with dedicated maintenance cleaner.
  (Amount used: 0.5 ml)

[2] Look in the stainless tray to check the bottom of the carriage.
Using the cleaning stick dampened with the maintenance cleaner, moisten the surface of the print head nozzles.

- Lightly touch with the cleaning stick to moisten the nozzle surface.
- Repeat it a couple of times to moisten the entire nozzle surface.



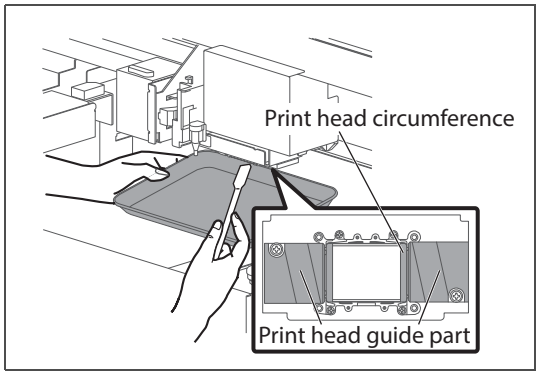
Important!

- **DO NOT rub into the nozzle surface.**
  It can cause damage to the print head.
- **If the entire nozzle surface has been moistened, you can stop it.**

[3] Next clean the print head circumference.

3. Cleaning of print head circumference

[1]



Look in the tray to check the bottom of the carriage.
Check if dusts and ink deposit are adhered.

- Print head circumference (silver metal part)
- Print head guide part (black plastic part)

Important!

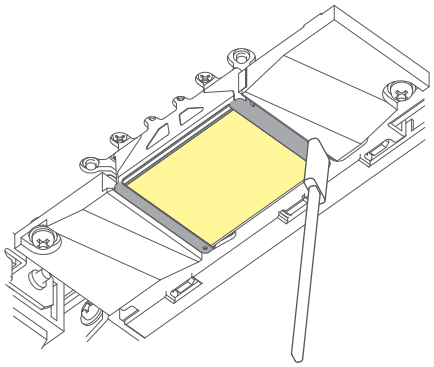
If maintenance cleaner is splashed onto the printer, use a paper towel to wipe it off.

[2] Use the cleaning stick to remove the ink and dust on the circumference of the bottom of the carriage.

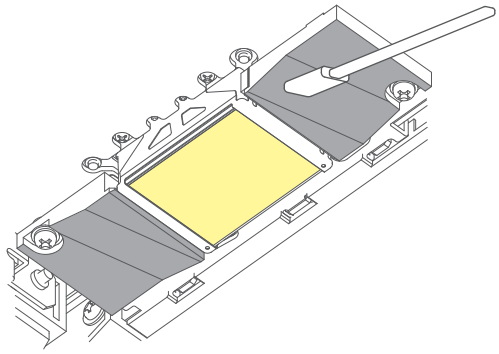
Cleaning required

DO NOT touch the surface of a print head (the yellow portions in the illustration below)

Print head circumference (silver metal part)



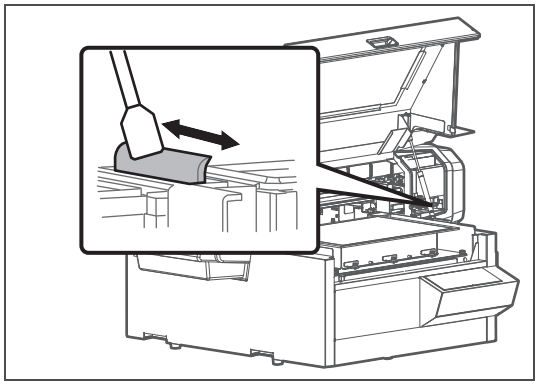
Print head guide part (black plastic part)



[3] Next clean the cleaning wiper and the cap circumference.

4. Cleaning of cleaning wiper and the circumference of the cap

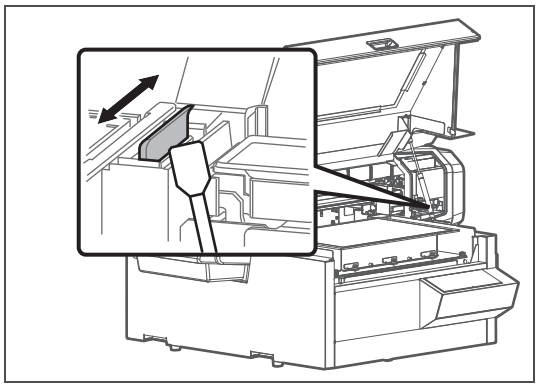
[1]



Wipe the cleaning wiper with a cleaning stick.

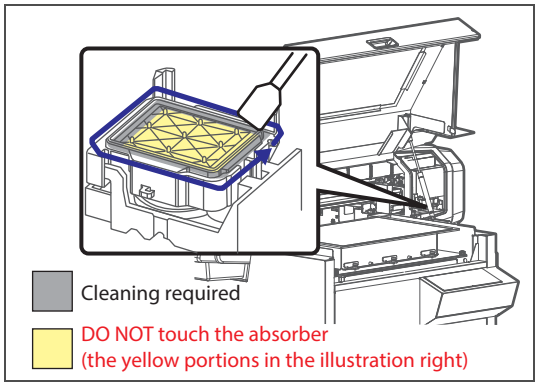
- Wipe the left side surface of cleaning wiper going back and forth.

[2]



Wipe the right side surface of cleaning wiper going back and forth.

[3]



Use the cleaning stick to remove the ink and dust on the circumference of the cap.

[4] Close the front cover gently.

[5] Next finish the daily maintenance.

5. Finishing daily maintenance

[1]

Tap [Enter].

[2] The printer automatically performs the Short cleaning.

[3] When the Short cleaning is complete, the printer automatically enters to sleep mode.

[4]
- Dispose of the used cleaning stick.
- Use a paper towel to wipe the maintenance cleaner off the dropper.
- Dispose of the maintenance cleaner in the plastic cup and dry the cup well using the paper towel.
- Use a paper towel to clean the tray.

Important!

- **Do not reuse a cleaning stick.**
  Dusts can adhere causing damage to the print head.
- **Check that the lid of the maintenance cleaner is shut properly and store it.**

[5] Now the daily maintenance is complete.

Note

Used cleaning stick should be put in a plastic bag, etc, and dispose of it in compliance with local ordinance and instructions of local authorities.

Head cleaning

When nozzle clogging is found in nozzle check, conduct head cleaning. Head cleaning consumes ink.
There are several cleaning modes in this product. Please select an appropriate mode based on your usage condition.

Short cleaning	Consumes less ink than Normal cleaning.
Normal cleaning	Perform Normal cleaning if nozzle clogging is found on the nozzle check print.
Long cleaning	Perform Long cleaning if nozzle clogging still persists after performing Normal cleaning. It consumes more ink than Normal cleaning.
Little Charge	Provide higher cleaning effect than Long cleaning, but it also consumes more ink. *This mode cannot be selected via the ▶. Select it from the Cleaning submenu in the Panel Setting Menus. ☞ "Maitenance 1: Cleaning" P. 96
Initial Charge	Provide higher cleaning effect than Little Charge, but it also consumes more ink. *This mode cannot be selected via the ▶. Select it from the Cleaning submenu in the Panel Setting Menus. ☞ "Maitenance 1: Cleaning" P. 96

Important!

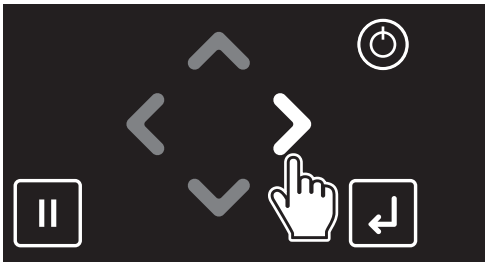
Comply strictly with the following when you performing “Little Charge” or “Initial Charge”. If charging is interrupted, ink will be lost when charging is resumed.

- **Do not open the Front cover or the PG handle cover.**
- **Do not use ink cartridges (or ink bags) that have little ink remaining.**

Steps for head cleaning

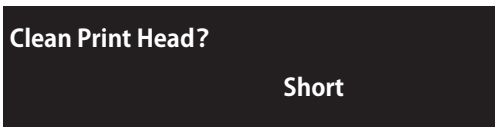
[1] Check that the message on the left is displayed.

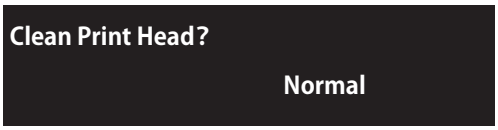
[2] Tap ❯.

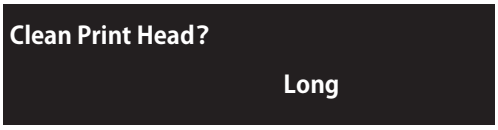


[3] Use ^ or v to choose the cleaning mode.
Tap [Enter].

- The printer will start cleaning.







[4] Run a nozzle check print.

- If the problem persists, repeat normal cleaning until all nozzles are clear.

☞ **"Steps for head cleaning" P. 136**

Note

- When nozzle clogging remains even after repeating “Normal cleaning” several times, conduct “Long cleaning”.
- When nozzle clogging remains even after repeating “Long cleaning” several times, conduct **"Clean daily maintenance parts" P. 137**.
- If it does not help to recover the nozzle, carry out “LittleCharge” via the **"Maitenance 1: Cleaning" P. 96** in the Panel Setting Menus.

Clean daily maintenance parts

In following cases, clean the daily maintenance parts.

- If faint print or dot missing still persists even after head cleaning has been performed.
- If you perform printing all day without entering to sleep mode and you need to perform daily maintenance.

Preparation:

See "Preparing for Daily Maintenance" P. 127 to prepare items required for the maintenance.

Important!

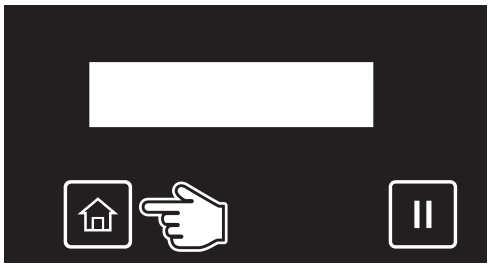
If you want to continuously use the printer after this maintenance, follow the steps below.
If you will not use the printer after this maintenance, enter to sleep mode and then perform maintenance.

"Daily Maintenance" P. 126

1. Putting the printer into the Daily maintenance mode

[1] Check that the media and jig are removed from the printer.

[2]



Tap [Home].

[3]

- Use ▼ to choose the menu shown left.
- Tap ▶.

[4]

- Use ▼ to choose the menu shown left.
- Tap ▶.

[5]

Tap [Enter].

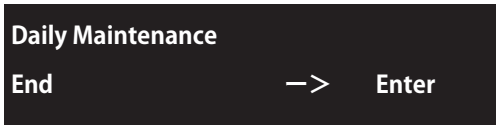
[6]

The message on the left will appear.

- Remove the media and the jig on the table, and then tap [Enter].

- The table, carriage and cleaning wiper move to gain access to maintenance.

[7]



The message on the left will appear.

- You can start maintenance.

2. Cleaning daily maintenance parts

The maintenance procedure and parts to be cleaned are the same as "Daily Maintenance" P. 126.
Follow the steps described in "Performing Daily Maintenance" P. 129 to clean each part.

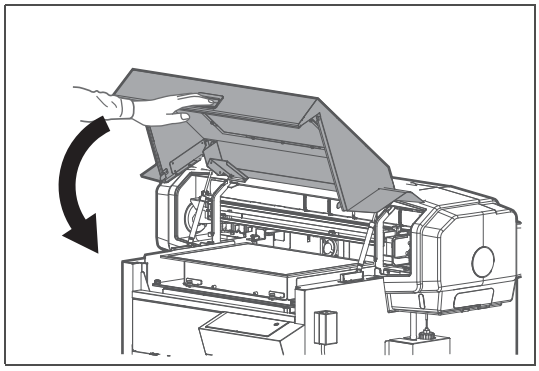
- ☞ "Cleaning of UV Lamp" P. 129
- ☞ "Moistening the surface of print head nozzles" P. 131
- ☞ "Cleaning of print head circumference" P. 132
- ☞ "Cleaning of cleaning wiper and the circumference of the cap" P. 133

Important!

Make sure to complete this maintenance within 5 minutes while the printer is in Daily maintenance state.

3. Finishing maintenance

[1]



Hold the position shown on the left and gently close the cover.

[2]

Tap [Enter].

[3] The printer automatically performs the Short cleaning.

[4]

- Dispose of the used cleaning stick.
- Use a paper towel to wipe the maintenance cleaner off the dropper.
- Dispose of the maintenance cleaner in the plastic cup and dry the cup well using the paper towel.
- Use a paper towel to clean the tray.

Important!

- **Do not reuse a cleaning stick.**
  Dusts can adhere causing damage to the print head.
- **Check that the lid of the maintenance cleaner is shut properly and store it.**

[5] Now the maintenance is complete.

Inside cleaning

Cleaning period:

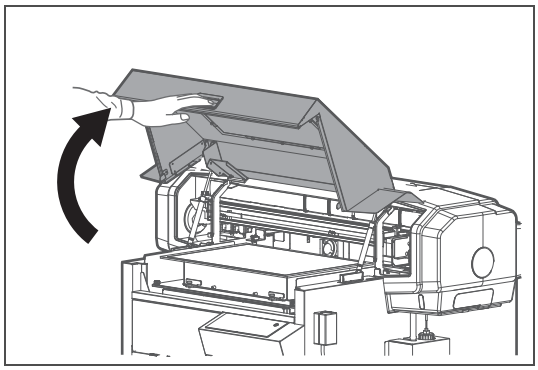
- Monthly

CAUTION

Before cleaning inside the printer, turn the power off and unplug the power cord.

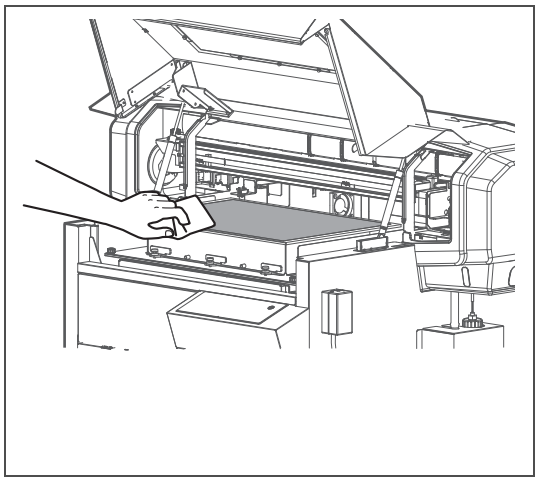
Steps

[1]



Hold the handle on the front cover to gently open it.

[2]



Clean away dirt from the table using a cloth soaked in water and thoroughly wrung out.

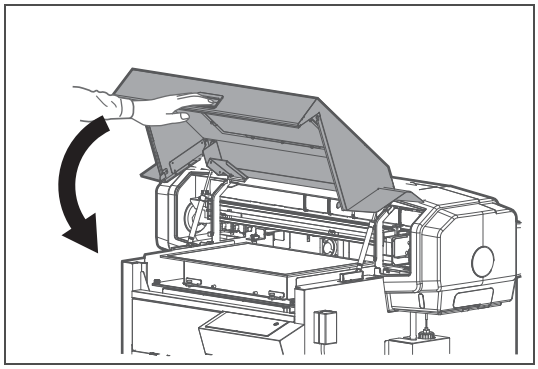
Important!

- **Do not blow off dusts inside the product with a gas duster. Dust can attach to moving parts, causing abnormal sound or malfunctions.**
- **Do not rub the hardened ink on the table with the included scraper. The table may be damaged.**

Note

If ink on the table cannot be removed, use your personal resin squeegee or scraper to remove it. Be sure not to damage the table.

[3]



Hold the position shown on the left and gently close the cover.

Replacing absorption material for the flushing box

The flushing box is a part that keeps receiving ink discharged from the print head. Please replace the absorption material for the flushing box periodically. If used without replacing, it can cause damage to the print head.

Replacing period:

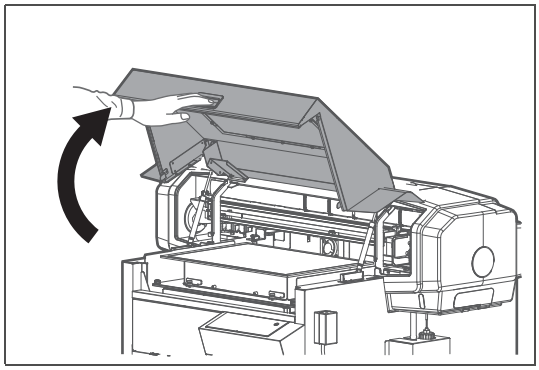
- When ink clumps have accumulated on the flushing-box sponges beyond the flushing-box frame. (since it differs depending on usage frequency, please check periodically)

⚠ CAUTION

Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction. When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.

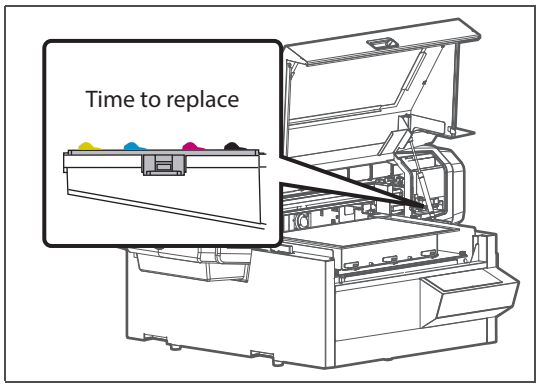
1. Checking steps

[1]

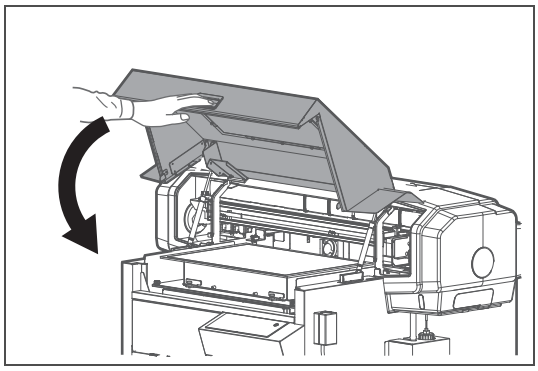


Hold the handle on the front cover to gently open it.

[2]



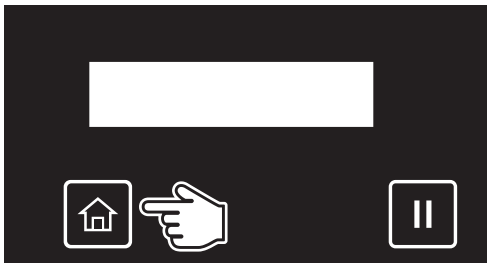
- Check the absorption material for the flushing box.
- If the ink deposit is visible on the flushing box, replace the absorption material.

[3] 

Hold the position shown on the left and gently close the cover.

2. Replacing steps

[1] Check that the media and jig are removed from the printer.

[2] 

Tap [Home].

[3]

```
Menu3
Maintenance
```

- Use ▼ to choose the menu shown left.
- Tap ❯.

[4]

```
Maintenance3
CR Maintenance
```

- Use ▼ to choose the menu shown left.
- Tap ❯.

[5]

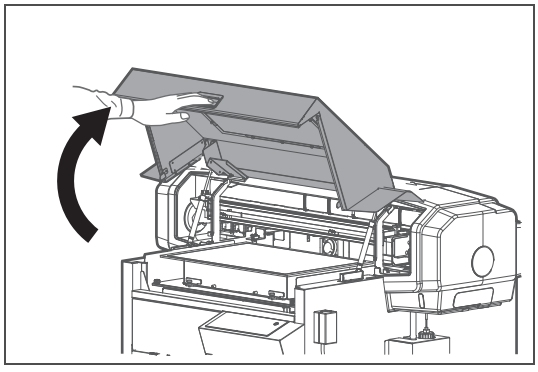
```
CR Maintenance
Start          ->   Enter
```

Tap [Enter].

- The carriage will move to the left side of the printer.
- The cleaning wiper will move upward.

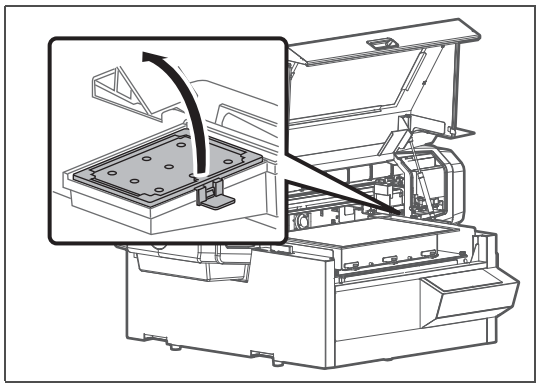
```
CR Maintenance
End            ->   Enter
```

The message on the left will appear.

[6] 

Hold the handle on the front cover to gently open it.

[7]



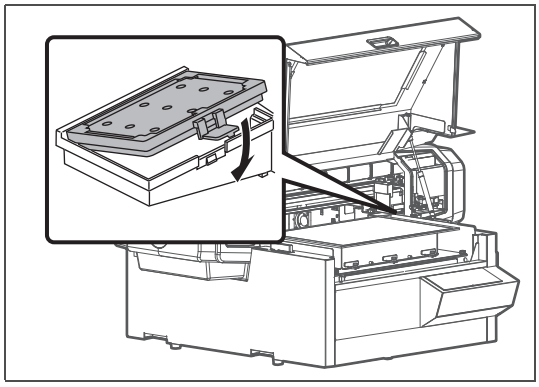
Remove the absorption material for the flushing box.

- Pull the tab up of the absorption material for the flushing box, and release the hook.

Important!

When removing the absorption material for the flushing box, be cautious of ink drops.

[8]

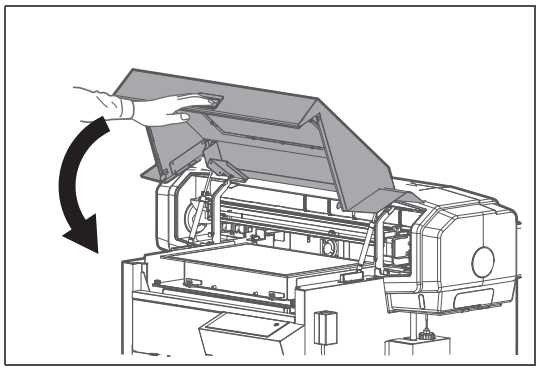


Attach new absorption material for the flushing box.

Note

Used absorption material for the flushing box should be put in a plastic bag, etc, and dispose of it in compliance with local ordinance and instructions of local authorities.

[9]



Hold the position shown on the left and gently close the cover.

[10]

CR Maintenance		
End	—>	Enter

Tap [Enter].

CR Maintenance		
Start	—>	Enter

- The message on the left will appear.
- That ends the procedure.

Replacing the cleaning wiper

The cleaning wiper is an essential part to make printing consistent. Please replace it periodically.

Replacing period:

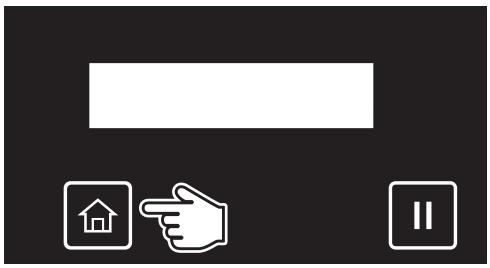
- Approx. every six months

⚠ CAUTION

Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction. When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.

Replacing steps

[1] Check that the media and jig are removed from the printer.

[2] 

Tap [Home].

[3]

```
Menu3
Maintenance
```

- Use ▼ to choose the menu shown left.
- Tap ❯.

[4]

```
Maintenance3
CR Maintenance
```

- Use ▼ to choose the menu shown left.
- Tap ❯.

[5]

```
CR Maintenance
Start          ->   Enter
```

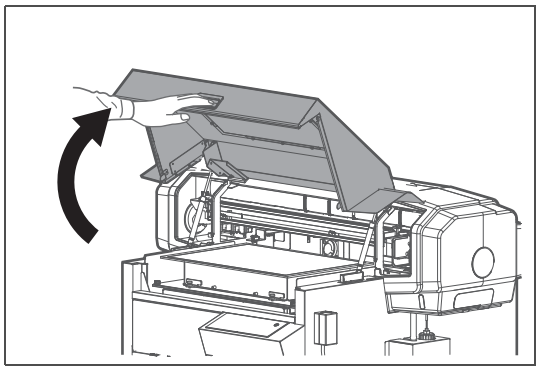
Tap [Enter].

- The carriage will move to the left side of the printer.
- The cleaning wiper will move upward.

The message on the left will appear.

```
CR Maintenance
End            ->   Enter
```

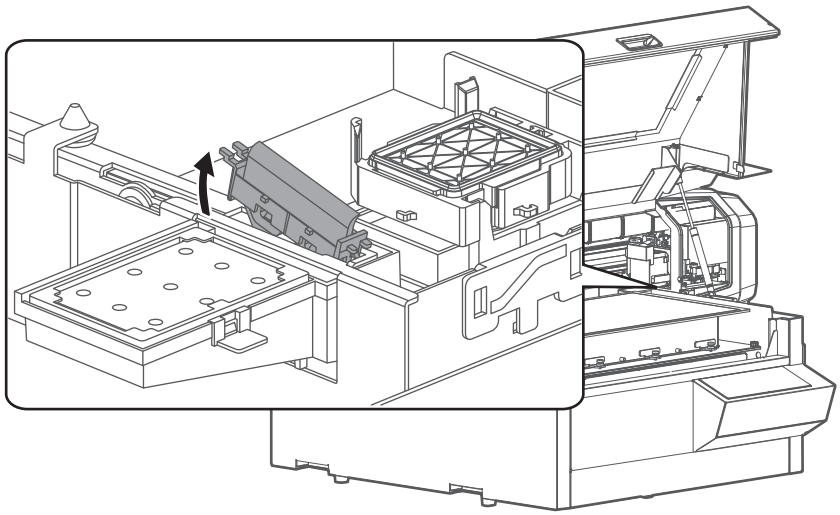
[6]



Hold the handle on the front cover to gently open it.

[7] Remove the cleaning wiper.

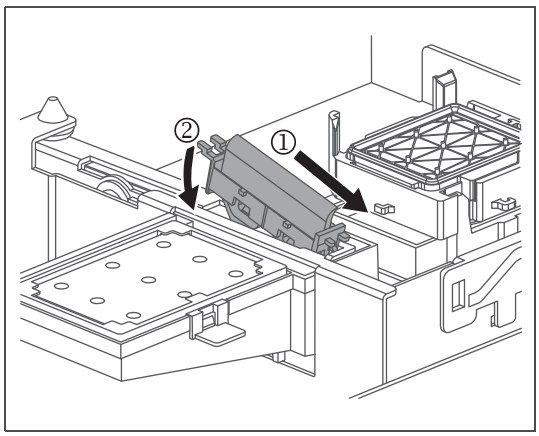
- Lift the cleaning wiper hook and release the hook. Then, remove the cleaning wiper.



Important!

When removing the cleaning wiper, be cautious of ink drops.

[8]



Follow the steps below to install new cleaning wiper.

- Slide the front side of the new cleaning wiper into its slot.
- Press the wiper hook down until it clicks into place.

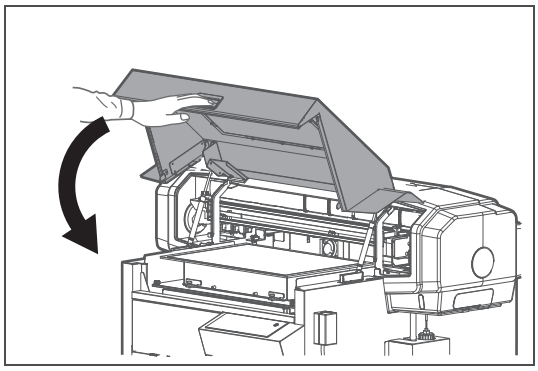
Important!

Do NOT touch the cleaning wiper rubber with your bare hand.
If finger oil gets on the rubber, it will damage the print head.

Note

Used cleaning wiper should be put in a plastic bag, etc, and dispose of it in compliance with local ordinance and instructions of local authorities.

[9]



Hold the position shown on the left and gently close the cover.

[10]

CR Maintenance		
End	—>	Enter

Tap [Enter].

CR Maintenance		
Start	—>	Enter

- The message on the left will appear.
- That ends the procedure.

Replacing the Emitting Window Glass on the UV-LED Lamp

The emitting window glass protects the UV-LED lamp from ink mist. Using the printer with dirty glass will cause damage to the lamp or insufficient ink curing. Replace the glass as needed.

Replacing period:

- **When the glass has cracks or chips.**
- **When the ink cannot be removed from the glass.**

⚠ CAUTION

Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction. When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.

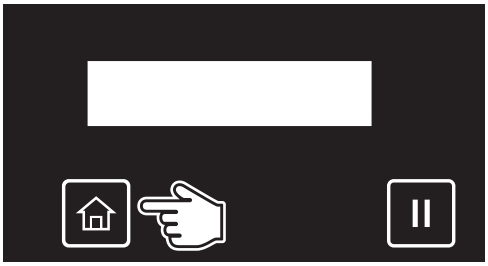
⚠ CAUTION

After printing, the UV-LED lamp may get hot.
Leave it for 30 minutes to cool down and then start maintenance.

Replacing steps

[1] Check that the media and jig are removed from the printer.

[2]



Tap [Home].

[3]

- Use ▼ to choose the menu shown left.
- Tap ▶.

[4]

- Use ▼ to choose the menu shown left.
- Tap ▶.

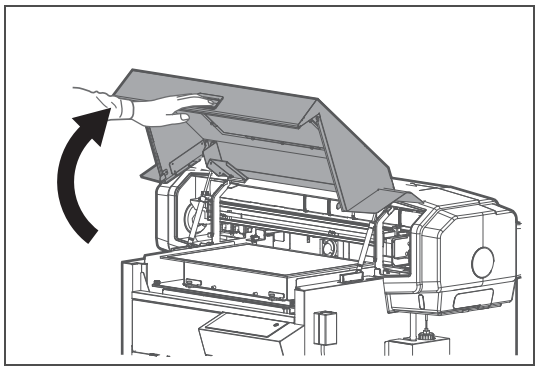
[5]

Tap [Enter].

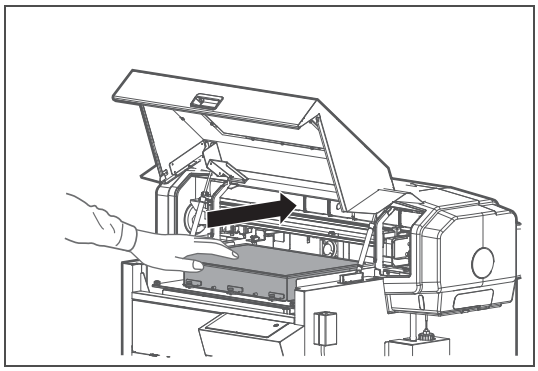
- The carriage will move to the left side of the printer.
- The cleaning wiper will move upward.

The message on the left will appear.

[6] Hold the handle on the front cover to gently open it.

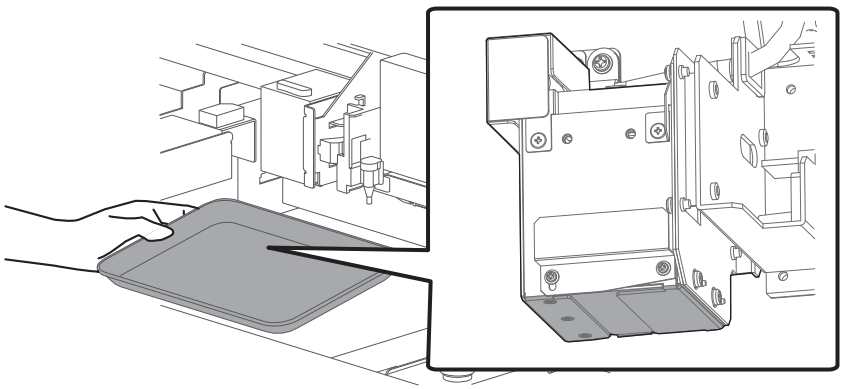


[7] Push the table all the way.



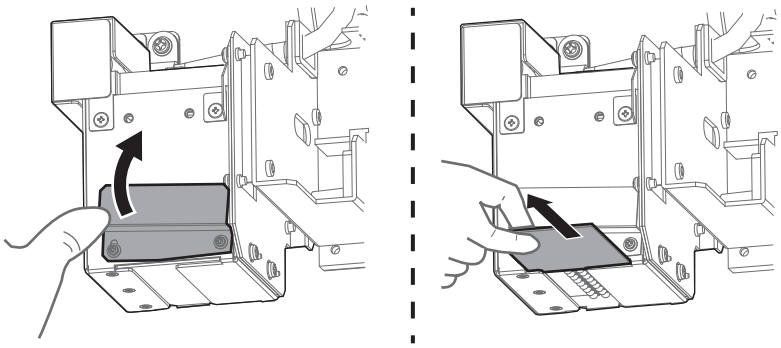
[8] Look in the stainless tray to check the bottom of the carriage.

- Check for cracks, chips, or ink on the emitting window glass of the UV-LED lamp.



[9] Replace the glass.

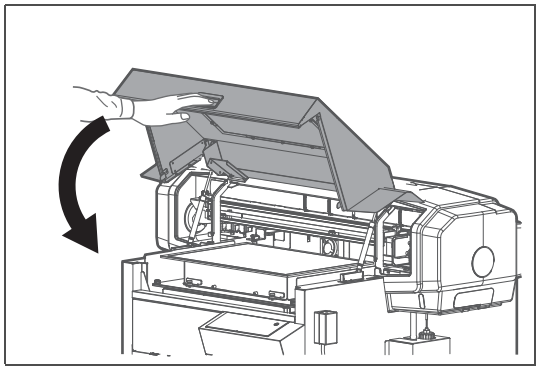
- Slide up the left side of the exhaust fan cover. The right side screw serves as a fulcrum.
- Slide the glass on the bottom of the lamp towards the front to remove it.
- Install a new glass on the UV-LED lamp.
- Firmly slide it into the end and then put the exhaust fan cover back in place.



Important!

Be sure not to forget to install a new glass. Using this product without a glass will cause damage to the UV-LED lamp.

[10] Move the table to the front by hand.

[11] 

Hold the position shown on the left and gently close the cover.

[12]

CR Maintenance		
End	—>	Enter

Tap [Enter].

CR Maintenance		
Start	—>	Enter

- The message on the left will appear.
- That ends the procedure.

Replacing UV-LED Lamp Filter

The UV-LED lamp filter protects the lamp from ink mist. Using the printer with dirty filter will cause damage to the UL-LED lamp.

Replacing period:

- **Once a month or when the filter gets dirty by dust or ink.**
  (since it differs depending on usage frequency, please check periodically)

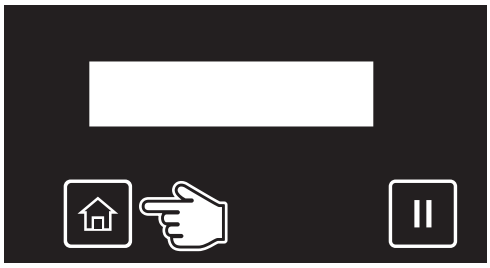
⚠ CAUTION

Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction.
When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.

Replacing steps

[1] Check that the media and jig are removed from the printer.

[2]



Tap [Home].

[3]

- Use ▼ to choose the menu shown left.
- Tap ❯.

[4]

- Use ▼ to choose the menu shown left.
- Tap ❯.

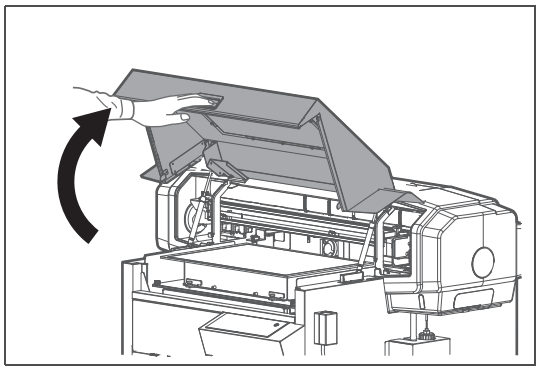
[5]

Tap [Enter].

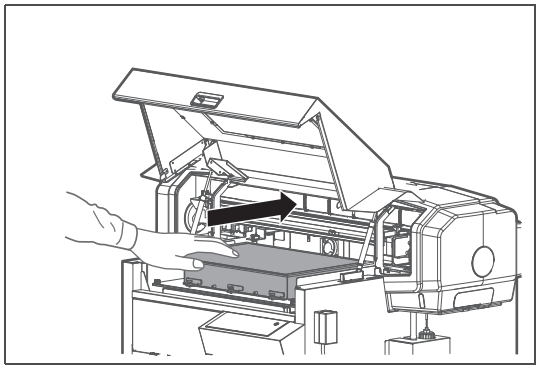
- The carriage will move to the left side of the printer.
- The cleaning wiper will move upward.

The message on the left will appear.

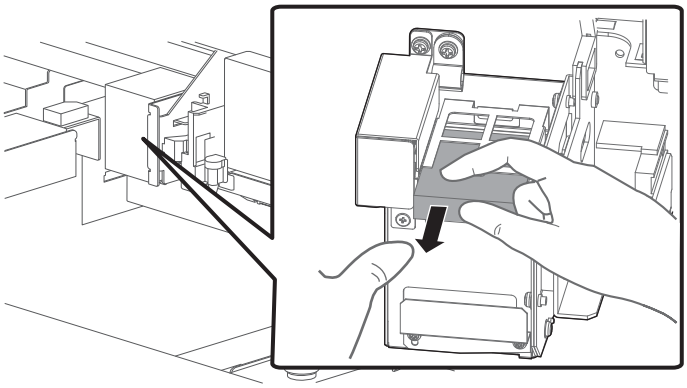
[6] Hold the handle on the front cover to gently open it.



[7] Push the table all the way



[8] While supporting the UV-LED lamp with one hand, remove the filter from the lamp.

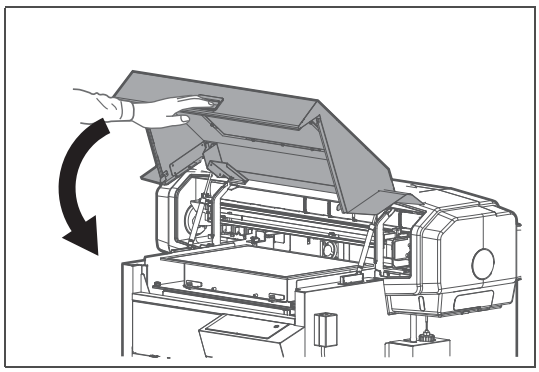


[9] Replace with the new filter.

- Firmly insert it into the filter slot.

[10] Move the table to the front by hand.

[11] Hold the position shown on the left and gently close the cover.



[12] Tap [Enter].

- The message on the left will appear.
- That ends the procedure.

Transporting

Please refer to this section when transporting this product.

Transporting

When transporting this product, it is necessary to empty the waste ink tank and fixate the print head and the table with packaging material. Transporting without these steps can cause ink leakage.

To use the printer again, reinstall the printer and perform initial charging.

⚠ CAUTION

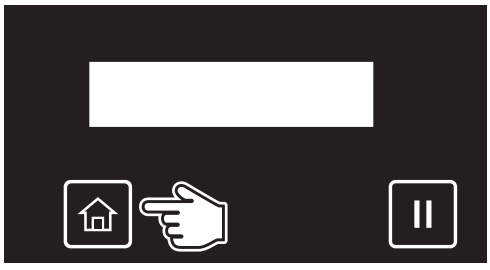
Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction. When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.

Important!

- **When moving this product, always empty the waste ink tank even moving short distance.**
- **Do not tilt, or place this product upside down.**
  Otherwise the ink may leak or the handling mentioned above may cause abnormality.

1. Discharging the ink in the printer and waste ink

[1]



Tap [Home].

[2]

- Use ▼ to choose the menu shown left.
- Tap ▶.

[3]

- Use ▼ to choose the menu shown left.
- Tap ▶.

[4]

Tap [Enter].

[5]

Empty Waste Ink Tank
then Tap Enter

When the message on the left appears, transfer the waste ink into a container.

☞ "Drain waste ink into a container" P. 123 Under "Emptying waste ink tank"

Empty the Tank?
No

The message on the left will appear.

[6]

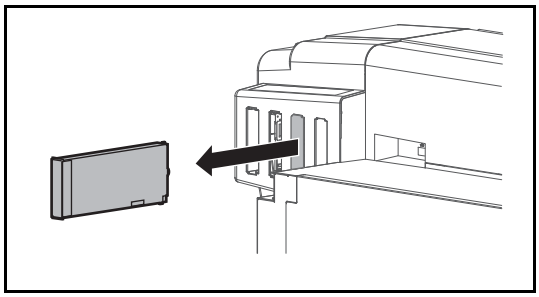
Empty the Tank?
Yes

- Use ▼ to choose the menu shown left.
- Tap [Enter].

Remove Cartridges

The message on the left will appear.

[7]



Remove the ink cartridges (or high-capacity ink pack adapters) from all the cartridge slots.

Discharging **%

The message on the left will appear.

- Discharging the ink will start.

[8]

[1 2 3 4 5 6] No Cart.

No Cart. XXXXXX

- When the message on the left appears, transfer the waste ink into a container.

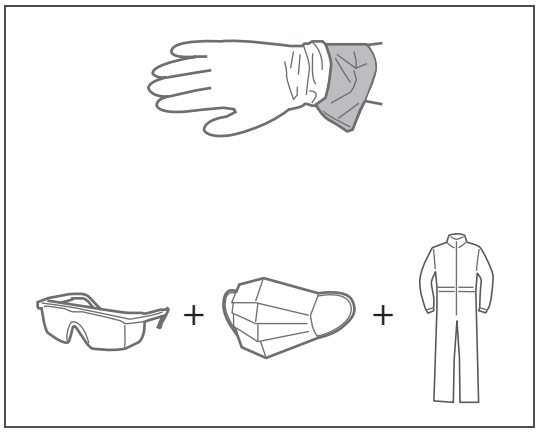
☞ "Drain waste ink into a container" P. 123 Under "Emptying waste ink tank"

[9] Reset the waste ink counter.

☞ "Resetting waste ink counter" P. 125

2. Repacking

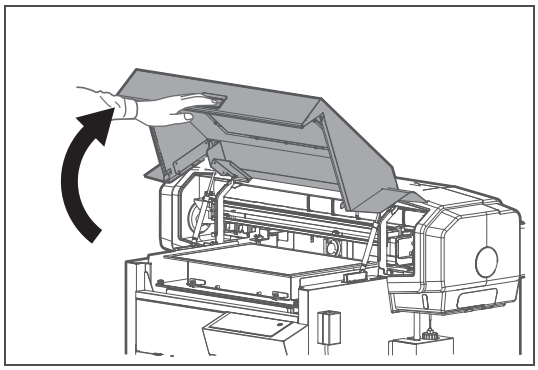
[1]



- Wear the rubber gloves over the polyethylene gloves.
- Wear personal protective equipment such as goggles, protective mask or clothing.

[2] Remove all cables from the printer.

[3]

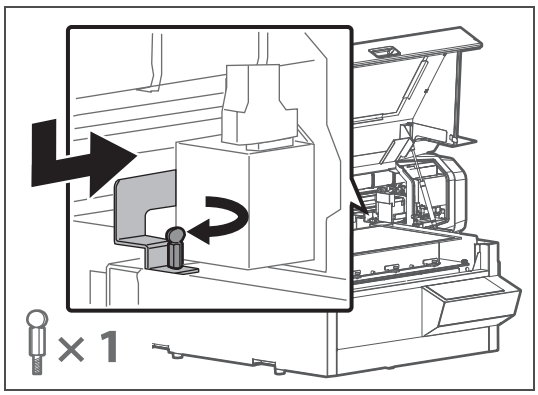


Hold the handle on the front cover to gently open it.

[4] Remove the table from the printer.

"Removing the standard table from the printer" P. 55

[5]



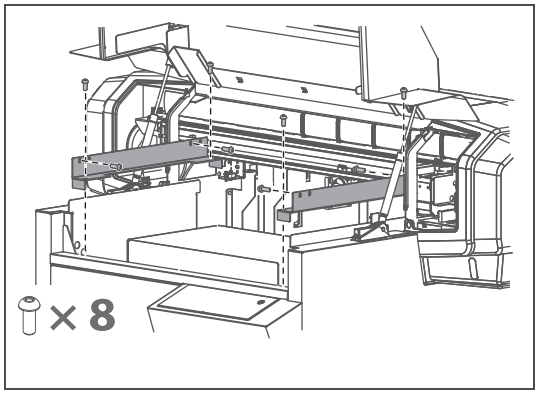
Attach the head fixing plate with screws.

- Slide the head fixing plate leftward to attach it.

Note

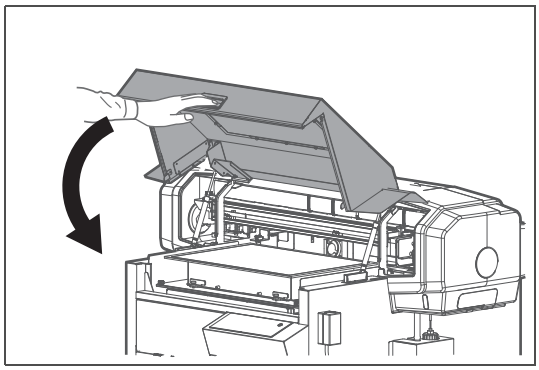
Attach the head fixing plate carefully, so that it does not scratch any of the surrounding parts.If they are scratched, the print quality could drop.

[6]



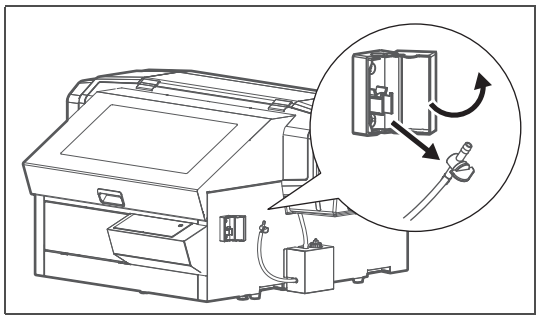
Use the hexagon wrench to install the two table fixing plates with the eight scerews.

[7]



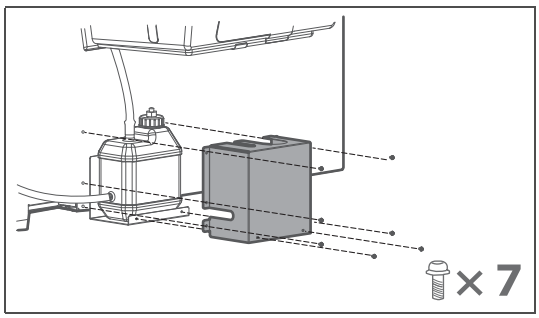
Hold the position shown on the left and gently close the cover.

[8]



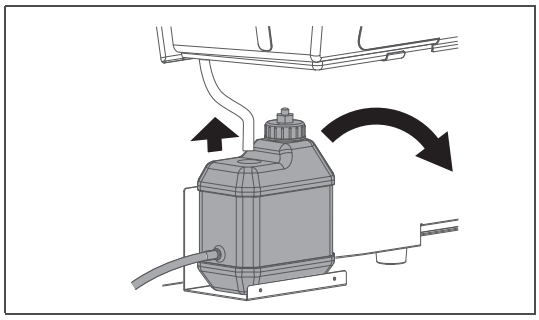
Open the cover of the drain tube valve clamp, then unhook the drain tube valve to take it out from the clamp.

[9]



Remove seven screws (M3 × 6) on the waste ink tank cover to remove the cover from the printer.

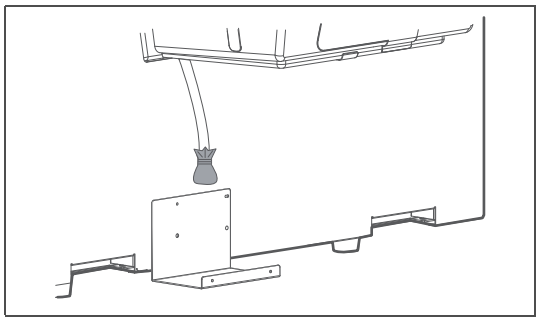
[10]



Remove the waste ink tank.

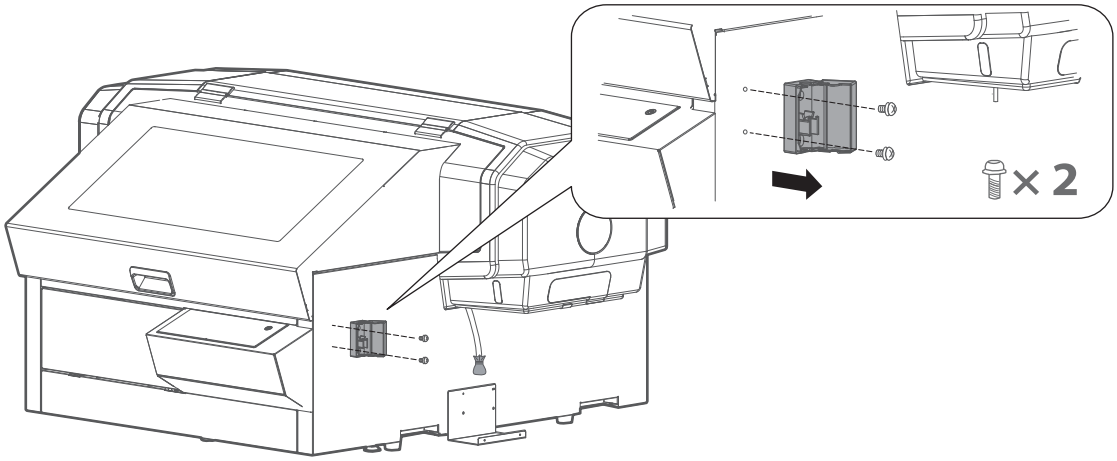
- Remove the drain tube from the tank.
- Remove the waste ink tank from the tank holder.

[11]

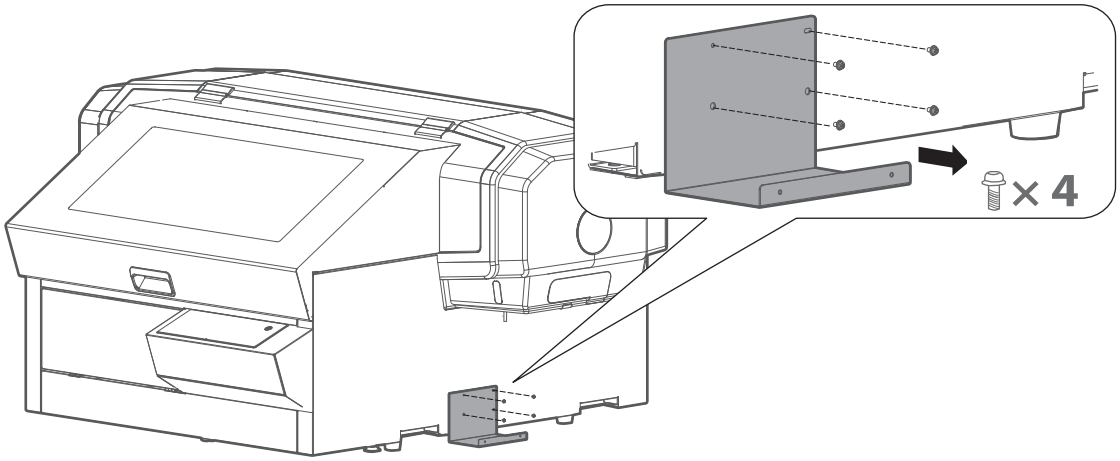


To prevent waste fluid from dripping, cover the tip of the tube with a plastic bag and secure with tape.

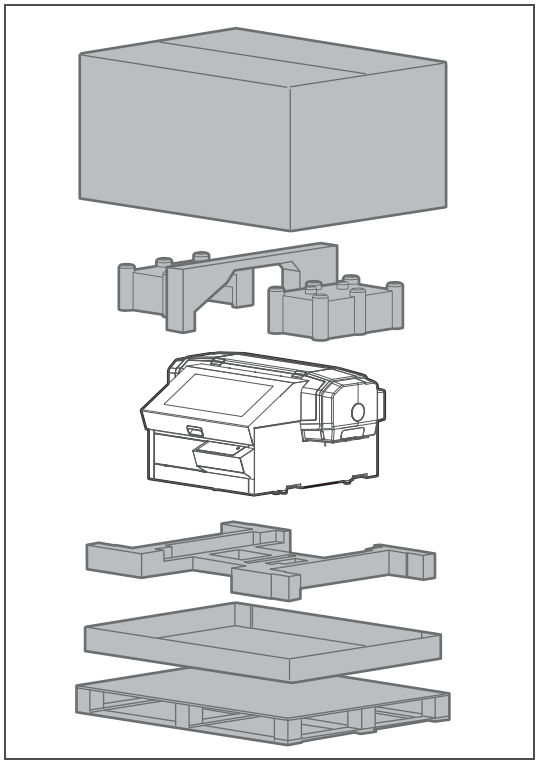
[12] Remove two screws (M3 × 6) on the two-way valve clamp to remove the clamp from the printer.



[13] Remove four screws (M3 × 6) on the waste ink tank holder to remove the holder from the printer.



[14]



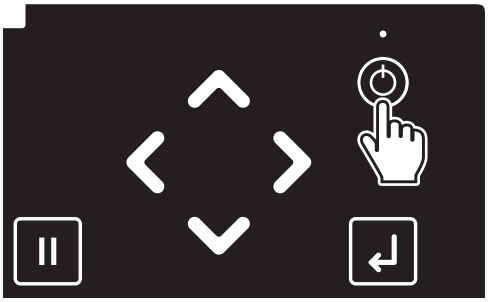
Attach protection materials, and place the product inside the package box.

[1] Referring to “Startup Guide”, unpack the product and assemble.
- Conduct up to “Turning the Power On and Making the Initial Settings”.

[2] Carry out initial ink charging after ink discharge.
☞ "How to perform initial ink charging after ink discharge" P. 156

How to perform initial ink charging after ink discharge

[1]

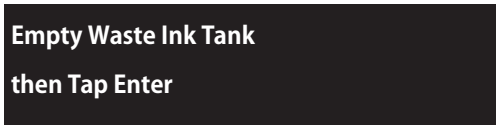


Long press the Power button.
- The keys on the operation panel light up.
- The printer will start mechanical initialization.

[2]

Tap [Enter] when the message on the left appears.

[3]



When the message on the left appears, empty the waste ink tank.
☞ "Drain waste ink into a container" P. 123 under "Emptying waste ink tank"

[4]

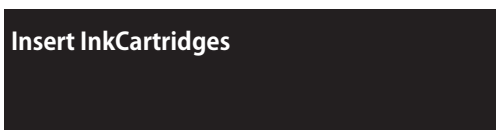
The message on the left will appear.

[5]

- Use ▼ to choose the menu shown left.
- Tap [Enter].

Note

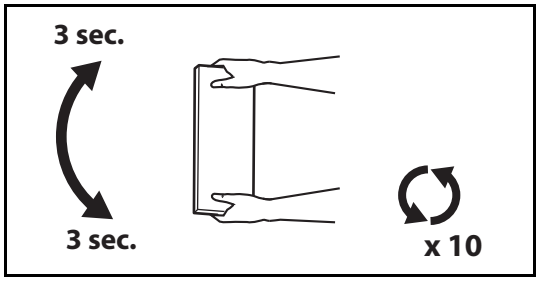
(When you use your printer for the first time or after you replace the waste ink tank) If no or small amount of waste fluid is collected in the waste ink tank, you may not be able to drain fluid out of the tank.



The message on the left will appear.

Procedure for ink cartridge

[1]



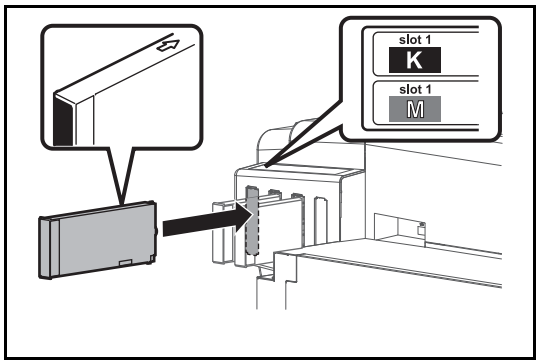
Make sure you agitate the ink cartridge after you unpack it.

- Turn the ink plug upward and wait for three seconds.
- Next, turn the ink plug downward and wait for three seconds.
- Repeat that 10 times.

Note

- You do not have to agitate varnish ink before use.

[2]



Insert ink cartridge to this product.

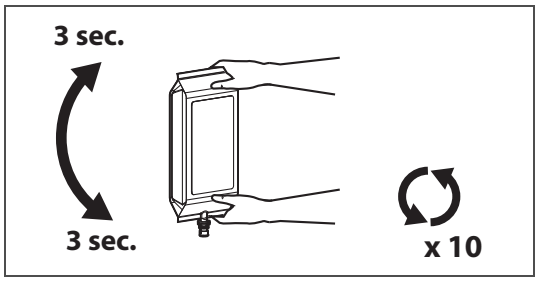
- Match the label of this product to the color of ink cartridge.
- The arrow on the cartridge should face up.
- Insert each cartridge to firmly seat it into each slot.

Important!

Load the same ink color configuration as before.

Procedure for high-capacity ink pack adapter

[1]



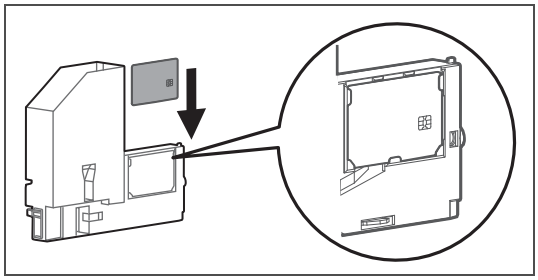
Make sure you agitate the ink bag after you prepare it.

- Turn the ink plug upward and wait for three seconds.
- Next, turn the ink plug downward and wait for three seconds.
- Repeat that three times.

Note

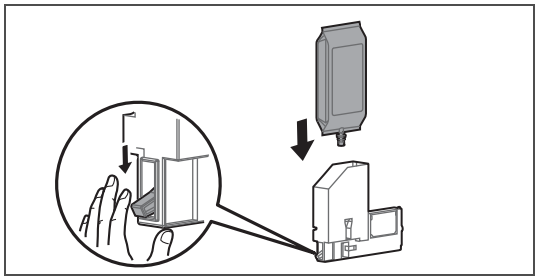
When replacing varnish ink, you do not have to agitate it.

[2]



Slide the smartchip card into the tabs of the adapter.

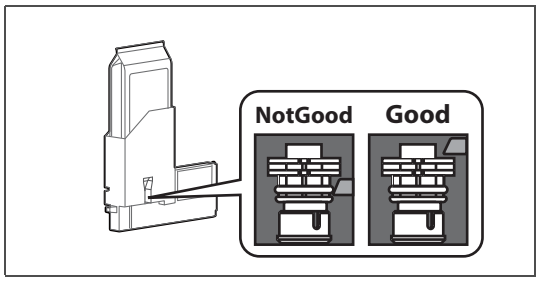
[3]



While lowering the lock lever of the high capacity ink pack adapter, insert an ink bag.

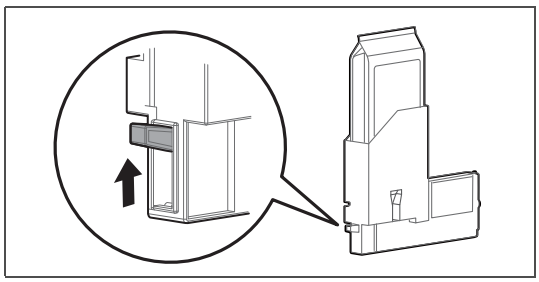
- Make sure to fully insert the ink bag into the high capacity ink pack adapter.

[4]



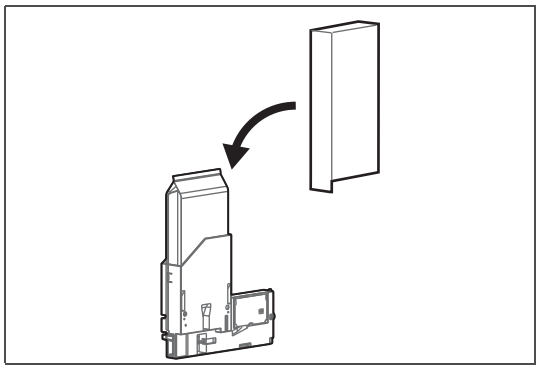
Confirm ink bag is fully seated by checking the lock mechanism is at the top of the ink delivery neck through the observation window, see proper placement in illustration left.

[5]



Make sure that the lock lever of the high capacity ink pack adapter is back to its original position.

[6]

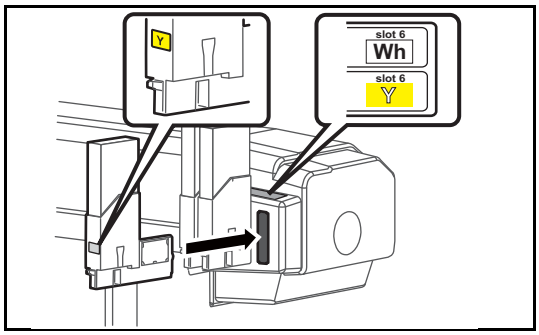


Place the light-shielding cover over the ink bag.

Note

Insert the light-shielding cover inside the high capacity ink pack adapter to only cover the ink bag.

[7]



Insert the high capacity ink pack adapters into Ink cartridge slots.

- Make sure to match the ink color with the color of the label above the cartridge slot.
- Insert all the way to the end.

Important!

Load the same ink color configuration as before.

Ink charging procedure after loading ink cartridges

[1]

The message on the left will appear.

- This printer starts ink charging.

CAUTION

DO NOT attempt the following actions during ink charging:

- **Power off the printer.**
- **Disconnect the power cord.**
- **Open the front cover and PG handle cover.**

[2]

When ink charging is complete, the message on the left will appear.

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Messages and Error Messages

This section describes messages displayed during normal printer operation or when errors occur, and solutions to the messages.

Status messages

This section describes messages displayed during printer normal operation.
When the product is operating correctly, each operation status is displayed on the front panel as below.

Display	Description
Activation required	Activation has not been executed. Consult the relevant section of the Startup Guide, and carry out activation. ☞ **Startup Guide "Step1 Carrying out activation"**
Ready to Print	Standby (Media is loaded).
Set media, then tap [∧] Key	Standby (Media is not loaded).
Obstacle detected Press [∨] Key.	An obstacle has been detected. Tap ∨, and reset the media in place. ☞ **"Loading media" P. 31**
Receiving	Receiving data.
Converting	Analyzing data.
Printing	Under printing.
Remain : XXX.Xm	Displays the length of the data that has not been printed in meters for the data currently being printed.
Remain Time : XXX.Xmin	Displays the time remaining to print in minutes for the data currently being printed.
PrintRestart->Enter	Printing is paused. To resume, tap [Enter].
Power Off	Turning OFF the printer. Please wait for a while.
S/C Reading	Reading the smartchip card.
Ink Circulation	Ink is circulating inside the printer.
*** Remote Mode ***	The remote panel mode is running, via MSM or similar. In the remote panel mode, operations via the operation panel are not possible. To terminate the remote panel mode, tap [Cancel] for more than two seconds.
Ink Charge Start -> Enter	Ink charging starts. Please wait a while.
Insert Cleaning Cart.	Washing print head. Install the cleaning cartridges.
Busy-Washing **%	• Initial charging, ejecting filler fluid. • Washing the print head by cleaning fluid. Please wait a while.
Remove Cartridges	Washing print head or discharging ink. Remove the ink cartridges (or high-capacity ink pack adapters).
Insert Ink Cartridges	Charging ink. Insert ink cartridges (or high-capacity ink pack adapters).

Display	Description
Ink Refill **%	Charging ink. Please wait a while.
Discharging	Discharging ink. Please wait a while.
Empty Waste Ink Tank then **tap Enter**	Transfer the waste ink from the waste ink tank into a container, and tap [Enter]. ☞ "Emptying waste ink tank" P. 122
Perform Daily Maint.	Make sure to perform daily maintenance when prompted. ☞ "Clean daily maintenance parts" P. 137

Error message display and possible solutions

This section describes error messages and possible solutions.
Error messages are displayed when certain failures occur during printer operation.
If an error that can be displayed occurs, the printer may display the following error messages on the operation panel and stop operation.

Display	Description
Cover Open	The front cover is open.
PG Handle Cover Open	The PG handwheel cover is open.
[******] Ink End	Ink has run out. (Stops operation) Replace with a new ink. ☞ "Replacing ink" P. 118
[******] NoCartridge	Ink cartridge (or high-capacity ink pack adapter) is not inserted. (Stops operation) Insert an ink cartridge (or high-capacity ink pack adapter).
[*******] Discharged	Ink is not filled. Perform initial ink charging. ☞ "How to perform initial ink charging after ink discharge" P. 156
Full WasteInkTank	The waste ink tank has become full. (Operation will stop when this happens.) Immediately transfer the waste ink into a container. ☞ "Emptying waste ink tank" P. 122
NearFullWasteInkTank	The waste ink tank is about to become full. (Operation will continue in this condition.) Transfer the waste ink into a container. ☞ "Emptying waste ink tank" P. 122
[*] Ink Low	Slot * ink is low. Get a replacement ink ready.
[******] S/C ReadErr	Failed to read the smartchip card. Insert the ink cartridge (or high-capacity ink pack adapter) again. If the problem persists, insert a new ink cartridge (for high-capacity ink pack adapter, insert a new smartchip card and a new ink bag into the adapter).
[******] S/C Col.Err	Wrong ink color. Insert a correct ink color cartridge (or ink bag).

Display	Description
[*] S/C Ink Err	The ink installed cannot be used for this printer. Contact your local MUTOH dealer.
[*] S/C CodeErr	Inserted ink cartridge (or smartchip card in case of high-capacity ink pack adapter) is not a proper one. Contact your local MUTOH dealer.
[*] Broken Chip	Smartchip card has been broken. Insert a new ink cartridge (or a new smartchip card and a new ink bag for high-capacity ink pack adapter).
[******] Check Ink	Ink cartridges (or high-capacity ink pack adapters) were not recognized correctly. Insert ink cartridges (or high-capacity ink pack adapters) correctly again. Contact your local MUTOH dealer.
[*]Reseat Ink	Because the smartchip card is poor in contact, the reinsertion of the ink cartridge is necessary. Reseat all the ink cartridges (or the high-capacity ink pack adapters).
Obst. - > Print Cancel	An obstacle has been detected. Tap [Enter] to cancel the job.
Obst. - > PrintContinue	An obstacle has been detected. Tap [Enter] to resume the job.
Daily Maint. Error	An obstacle has been detected. Press any key on the operation panel. Remove any object including a jig from the table and then perform daily maintenance.
Err!Reboot Printer	Activation has failed. Restart the printer and activate the printer again.
Life Times [Pump]	The operational life of the pump motor has almost expired. (Continues operation) Contact your local MUTOH dealer.
Life Times [CR Motor]	The operation life CR motor has almost expired. (Continues operation) Contact your local MUTOH dealer.
Life Times [PF Motor]	The operational life of the PF motor has almost expired. (Continues operation) Contact your local MUTOH dealer.
Life Times [C Pump]	The operational life of Circulation pump motor is almost expired. (Continues operation) Contact your local MUTOH dealer.
Life Times [UV Lamp]	The operational life of UV LED has almost expired. (The operation continues.) Contact your local MUTOH dealer.
Agitate W Ink	Agitate the White (Wh) ink.
Agitate KMCY Ink	Agitate the Black (K), Magenta (M), Cyan (C), and Yellow (Y) inks.
Agitate KMCYW Ink	Agitate the Black (K), Magenta (M), Cyan (C), Yellow (Y), and White (Wh) inks.
Agitate ALL Ink	Agitate all inks. Agitate the Black (K), Magenta (M), Cyan (C), and Yellow (Y) inks.
Ink Not Expired? OK -> Enter	Check the "Use Before" date on the cartridge (or ink bag) label.

Note

- The color inside [*******] in the error display represents the ink color with a problem.
- If no ink and no cartridge occur at the same time, no cartridge message has priority to be displayed.

Smartchip recovery

When the following message is prompted on the operation panel, a smartchip error such as broken chip may have occurred in the ink cartridge.
Check that the correct color is inserted in the cartridge slot and perform smartchip recovery.
This will allow you to continue to print.
To perform smartchip recovery, do one of the followings according to the message appeared.

Display	Description
[****] S/C Recog. Err.	An ink cartridge (or high-capacity ink pack adapter) that needs smartchip recovery may have been installed. Remove the ink cartridge (for high-capacity ink pack adapter, remove the high-capacity ink pack adapter and the smartchip card) and reload it. If the printer is still unable to read it, install a new ink cartridge (for high-capacity ink pack adapter, install a new ink bag and a new smartchip card). • If a message "[***] Check Color OK ->Enter" appears after the ink cartridge (or high-capacity ink pack adapter) is reloaded, follow the message "[***] Check Color OK ->Enter" to operate.
[***] Check Color OK ->Enter	An ink cartridge (or high-capacity ink pack adapter) that needs smartchip recovery may have been installed. Check that the ink color of the ink cartridge (or ink bag) inserted is correct. • In case of wrong color insertion, load a correct ink color cartridge (or bag). • If color is correct, tap [Enter] key. The printer will perform smart chip recovery and will continue to print.

Note

• During smartchip recovery execution, the cartridge slot being recovered blinks in the ink level indicator and printer status menu.

☞ **"Icon displays on operation panel" P. 11**, **"Printer Status 1: Ink" P. 101**

Error requiring restart

An error requiring restart is displayed if a fatal operational failure such as the following occurs.

- When an obstacle that prevents printing occurs.
- When a problem occurs with the electrical circuit (PCB, motor, sensor, etc.) of the printer.
- When a failure in the printer control program occurs.

If an error requiring restart occurs, the printer stops operating after performing the following operations.

1. The drive power automatically shuts down.
2. All LED lights on the operation panel blink and the printer beeps continuously.
3. The error message is displayed on the operation panel.

Pressing any key on the operation panel stops the beeping.
For an error requiring restart, operation will return to normal after removing the cause of the error and restarting the printer.
If the same error message is repeatedly displayed, contact the your local MUTOH dealer.
Be sure to tell us the code no. of the error message when you contact us.

Display	Description
Emergency Mode: E ***	A problem that does not have a remedy has occurred. 1. Check if the replaced parts are installed correctly. 2. Turn the power button off. Wait a short while, then turn the power button on, to restart the printer.
Emergency Mode: AC	The power was shut down instantaneously while the printer is operating. 1. Turn the power button off. Wait a short while, then turn the power button on, to restart the printer.
Emergency Mode: CPU	CPU error occurred. 1. Turn the power button off. Wait a short while, then turn the power button on, to restart the printer.

Note

" *** " in the error message is the code no. that indicates what type of error occurred.

Troubleshooting

This section describes undisplayed malfunctions and failures of the printer, possible causes and countermeasures.

Note

- The current status and error information of your printer can be checked from the Printer Status tab > Status Information on MSM.
  If your printer is not operating correctly, check this Status Information first.
- Make sure to use the latest version of MSM.
  To check the latest available version, go to Help > Version > Check for updates on MSM.
  If old version is installed in your computer, download the latest version from MUTOH Club.
  ☞ MUTOH Status Monitor Operation Manual

Installation and initial setup troubleshooting

Symptom	Possible cause and remedy
Cannot perform the initial inkcharging.	**Is the front cover, or the PG handle cover open?** • Close the front cover, or the maintenance cover.
	Are ink cartridges (or high-capacity ink pack adapters) inserted all the way into the printer? • Make sure they are all inserted properly.
Ink does not come out afterink charging.	**Is the ink cartridge (or ink bag) too cold?** • Leave it at room temperature for at least three hours, and perform cleaning several times. ☞ **"Head cleaning" P. 135**
	Is the power turned OFF during ink charging? • Turn the power ON again and continue ink charging.
Nozzle missing occurs afterinitial ink charging.	**Did you perform head cleaning?** • Perform cleaning, then, check the print result. ☞ **"Head cleaning" P. 135**, **"Maitenance 1: Cleaning" P. 96** • If there is no improvement in the print result even after performing cleaning, leave the printer unused for an hour or more.Then perform cleaning or "Little Charge" again and check the print result. • If the problem still persists, contact your local Mutoh dealer.
MSM or RIP cannot access tothe printer.	**Is Ethernet cable connected correctly?** • Securely connect the Ethernet cable to the Ethernet Port.
	Are the network settings configured correctly? • Configure the network settings correctly.
	Do the printer's network settings match the computer's settings? • Match this product's network settings with the computer side environment. ☞ **"Initial Settings 4: IP Address" P. 91**, **"Initial Settings 5: Subnet Mask" P. 91**, **"Initial Settings 6: Gateway" P. 92**

Boot-up troubleshooting

Symptom	Possible cause and remedy
Does not work at allafter power activation /after loading the media.	**Is the power cable connected to the plug?** • Connect the power cable.
	Does the AC power supply provide the specified voltage? • Connect the cable to another outlet.
	Is the front cover, or the PG handle cover open? • Close the front cover, or the PG handle cover.
	Is there any error message displayed on MSM? • Go to the Printer Status tab in MSM and check that if any error message is displayed in the Status Information.
	Do you use the printer within recommended environmental conditions? • Make sure to use the printer within the specification range. ☞ **“Ensuring a suitable place for installation” of the “Startup Guide”**

Media-related troubleshooting

Symptom	Possible cause and remedy
The printer does not detectthe media.	**Do you use transparency or low opacity media?** • The sensor may not detect those media. Make sure that the sensor correctly detects the media being used.
	Do you use textured media or uneven media? • The sensor detects the highest position on the media as media surface.The printer may not be able to print properly. ☞ **"Cautions for handling media" P. 18**
	Do you use the media with uneven or curved bottom surface? • The laser light will not be blocked by the rear edge of media so that the printer may not be able to optimize the table height.

Symptom	Possible cause and remedy
Print head strikes mediawhile printing.	**Is the media loaded correctly?** • Load the media correctly. ☞ "Requirements for usable media" P. 18, "Loading media" P. 31
	Is any wrinkles present on the media? • Smooth out the media to sit flat on the table.
	Is warp, fold or curl present on your media? • Follow the instructions in "Cautions for handling media" P. 18 • If media does not sit flat on the table, secure it on the table using a thin tape to avoid any warps.
	If you are using the optional vacuum table, is the vacuum fan power appropriate for the media being loaded? • If media warps, change the vacuum fan setting higher to reduce the chance of warp. ☞ "Loading media" P. 31, "**>5: Vacuum Fan" P. 75 • If it does not help, cover the vacuum holes around the media with papers to increase suction power.
	Is there any curls on the media while printing? • While printing, media may curl by UV lamp or ink curing. Use heat-resistant media or use a jig to prevent curls. ☞ "Cautions for handling media" P. 18

Table-related troubleshooting

Symptom	Possible cause and remedy
Noise occurs while the table moves up and down./ Table does not move and noise is present.	**Did you place a small and heavy media or jig on either end of the table?** • If you are using those items, place it as close to the center of the table as possible. ☞ "Requirements for usable media" P. 18
	Is total weight of media and jig within the allowable weight limit? • The maximum weight for jig and media is as follows: With standard table installed: 5kg With standard table removed: 8kg With optional vacuum table installed: 4kg Remove items on the table and reboot the printer. ☞ "Requirements for usable media" P. 18 • If the problem still persists, please contact your local Mutoh dealer.

Printing-related troubleshooting

Symptom	Possible cause and remedy
The printer does not print.	**Is Ethernet cable connected correctly?** • Securely connect the Ethernet cable to the Ethernet Port.
	Is there any error message displayed on MSM? • Go to the Printer Status tab in MSM and check that if any error message is displayed in the Status Information.
Smears constantly appearon the print and noise occurs.	**Please contact your local Mutoh dealer.**
The printing position is incorrect (some parts ofthe media cannot beprinted on).	**Is the media loaded on the correct position?** • Go to the Show Edges menu to check the printing area by LED pointer. ☞ "Leveling the table" P. 33
	Did the printer start printing from the correct position? • Go to the Show Edges menu to check the print start position by LED pointer. ☞ "Checking the printing area" P. 49 Note **To check the printing area before printing, go to "**>8: Show Edges" P. 77 and select "Step" or "Auto".**

Symptom	Possible cause and remedy
Printer doesn't expectedlyprint (ink mottle, ink bleed orfaint print appears)	**Is the media loaded correctly?** • Load the media correctly. ☞ "Loading media" P. 31 **Are ink cartridges (or ink bags) within the validity period?** • Use a non-expired ink cartridge (or ink bag). **Did you agitate ink in the cartridge?** • When "Agitate XX Ink" message appears on the operation panel, agitate ink in the cartridge. ☞ "Agitating ink" P. 114 **Are Nozzles in good condition?** • Perform Nozzle check. Then if nozzle missing is found, conduct head cleaning. ☞ "Nozzle check and cleaning" P. 39 • Perform Daily Maintenance. ☞ "Clean daily maintenance parts" P. 137 • The problem still persists, perform "LittleCharge". ☞ "Maitenance 1: Cleaning" P. 96 **Is the Ink Maintenance option set to Normal or Light?** • Select the Full mode. ☞ "Advanced Settings 10: Ink Maintenance" P. 86 **Did you perform Print quality adjustment?** • Perform Print quality adjustment. ☞ "**>2: Adjust Print" P. 66 **Did you perform layer alignment?** • Perform layer alignment. ☞ "**>3: Adjust Layer Print" P. 68 **Did you perform Media feed adjustment?** • Perform Media feed adjustment. ☞ "**>4: PF Adjust" P. 72 **If you are using the optional vacuum table, is the vacuum fan power appropriate for the media being loaded?** • Try lowering the vacuum fan setting. It might improve print quality. ☞ "**>5: Vacuum Fan" P. 75 Important! **When you lower the vacuum fan setting, make sure that your media does not warp.**

Symptom	Possible cause and remedy
Printed color is not accurate.	**Did you set the settings for print job, media and printer correctly as intended?** • **Set these settings correctly.**
	Did you agitate ink in the cartridge? • When “Agitate XX Ink” message appears on the operation panel, agitate ink in the cartridge. ☞ **"Agitating ink" P. 114**
	Are Nozzles in good condition? • Perform Nozzle check. Then if nozzle missing is found, conduct head cleaning. ☞ **"Nozzle check and cleaning" P. 39** • Perform Daily Maintenance. ☞ **"Clean daily maintenance parts" P. 137** • the problem still persists, perform “LittleCharge”. ☞ **"Maitenance 1: Cleaning" P. 96**
	Is the Ink Maintenance option set to Normal or Light? • Select the Full mode. ☞ **"Advanced Settings 10: Ink Maintenance" P. 86**
Nozzle missing remains afterhead cleaning.	**Is there any ink stains or deposits on the cleaning wiper or circumference of the print head?** • Perform head cleaning or “Little Charge” again and check the nozzle check print. ☞ **"Nozzle check and cleaning" P. 39** • Perform Daily Maintenance and check the nozzle check print. ☞ **"Clean daily maintenance parts" P. 137**, **"Nozzle check and cleaning" P. 39** • The problem still persists, contact your local Mutoh dealer. **Important!** **Do not use media that are liable to reflect the UV light.The reflective UV light can cure the ink on the print head.**

Specifications of this product

List of specifications

Model Name		XPJ-461UF
Print method		On demand piezo method
Drive method		Firmware servo/DC motor drive
Media feed method		Setting on (removing from) the table from the front, with the front cover open
Media hold down method		· Personal jig (it can be installed on the base table or standard table.) · Optional vacuum table
Ink curing device		UV-LED Lamp
Conditions of usable media	Maximum width	483 mm
	Maximum length	329 mm
	Maximum thickness	With standard table installed: 0 mm to 70 mm With standard table removed: 70 mm to 150 mm *A jig supported the thickness of media to be used is required for printing. With optional vacuum table installed: 0 mm to 70 mm
	Weight (including jig)	With standard table installed: up to 5 kg With standard table removed: up to 8 kg With optional vacuum table installed: up to 4 kg
Maximum print width		483 mm
Maximum print length		329 mm
Head height adjustment		Table height adjustable by using PG handwheel. Interference with media and/or head controlled via obstacle sensor
CPU		64bit RISC CPU
Memory		256MB
Interface		Ethernet (10/100BASE-TX)
Ink	Color	4 colors (Black, Cyan, Magenta, Yellow) 6 colors (Black, Cyan, Magenta, Yellow, White, Varnish)
	Type	220 ml ink cartridge, 800 ml ink bag (500 ml ink bag for White ink)
Waste Ink Tank		Fixed to the body type, capacity 2,000 ml, waste ink discharge by users

Environmental conditions	Operation environment	Temperature 20 to 32 °C, humidity 40 to 60%, no condensation.
	Recommended Printing Environment	Temperature 22 to 32 °C, humidity 40 to 60%, no condensation.
	Change rate	Temperature: No more than 2 °C per 1 hour Humidity: No more than 5% per 1 hour
	Environment for storage	Storage without ink charging: up to 6 months Temperature -20 to +60 °C, humidity 20 to 80% Storage with ink charging: up to 30 days *1*2 Temperature 5to +30 °C, humidity 20 to 80% *1 Perform the "Daily Maintenance" P. 126 in the operation manual. *2 Always leave the printer in sleep mode and check the remaining ink level once a week. Agitate the ink once a week as instructed.
	Ink Storage Environment	· UH21 ink Black/Cyan/Magenta/Yellow/Varnish (220 ml or 800 ml) White (220 ml or 500 ml) Temperature -10 to 50 °C (The storage period between 40 °C and 50 °C should be up to one month) Humidity: 5 to 85%, No condensation
		· US11 ink Black/Cyan/Magenta/Yellow/Varnish (220 ml or 800 ml) White (220 ml or 500 ml) Temperature 5 to 35 °C Humidity: No condensation
		· Cleaning cartridge (220 ml) (both UH21 and US11 inks) Temperature -10 to 50 °C (The storage period between 40 °C and 50 °C should be up to one month) Humidity: 5 to 85%, No condensation
Power supply specifications	Voltage	AC 100 V - 240 V ±10%
	Frequency	50/ 60Hz ±1Hz
	Capacity	No less than 4 A
Power consumption	Standby mode	20 W maximum
	Ready to print	40 W maximum
	Operation	195 W maximum
Power consumption *With optional vacuum table installed	Standby mode	AC 100 V - 240 V: 20 W maximum
	Ready to print	AC 100 V - 240 V: 110 W maximum
	Operation	AC 100 V - 240 V: 250 W maximum
Current consumption	100 V - 120 V	3.0 A maximum
	200 V - 240 V	1.5 A maximum
External dimensions	Height	597 mm
	Width	1,188 mm
	Depth	972 mm
Weight	Main body	95 kg

Options / Supply list

For more information about the options and the supply items, contact your local MUTOH dealer.

Revision History

Date	Version	Manual code	Supported Firmware
2019. 12	00	XPJ461UFE-A-00	V.1.00
2020. 1	01	XPJ461UFE-A-01	V.1.00
2021. 2	02	XPJ461UFE-A-02	V.1.01
2022. 1	03	XPJ461UFE-A-03	V.1.04
2022. 2	04	XPJ461UFE-A-04	V.1.05
2022. 6	05	XPJ461UFE-A-05	V.1.06 or later

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